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NEW DEFINITIONS OF RELEVANT MARKET AND THE ASSAULT ON ANTITRUST

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Introduction

"Definition of relevant market" is an effort to describe the array of firms that currently produces or potentially will produce products that are sufficiently close substitutes to take business away from any firm or group of firms that attempts to exercise market power. "Market power" is the ability of a firm to raise prices above competitive levels without promptly losing a substantial portion of its business to existing rivals or firms that become rivals as a result of the price increase.

Definition of relevant market is a critical analytical tool in antitrust enforcement because the legality of business conduct almost always depends upon the market power of the participants. In monopoly enforcement under section 2 of the Sherman Act,[1] the pivotal inquiry is almost always whether the challenged party has substantial market power in its relevant market. Merger enforcement under section 7 of the Clayton Act[2] proceeds from the premise that when a small group of firms occupies a large share of the relevant market, they can more easily collude or coordinate sales policies in order to raise prices above competitive levels. Accordingly, the legality of mergers depends on the market shares of the merging parties and, therefore, on the question of what is the proper market. Finally, a wide variety of challenges under section 1 of the Sherman Act[3] to horizontal and vertical contractual arrangements are judged under a "rule of reason," and reasonableness, and hence legality, will be influenced by the market power of the parties to the arrangement. Knowledgeable antitrust practitioners have long known that the most important single issue in most enforcement actions—because so much depends on it—is market definition.

Unfortunately, no aspect of antitrust enforcement has been handled nearly as badly as market definition. This failure has resulted in part because of persistent and unreconciled conflicts of approach in important judicial opinions.[4] It also reflects the fact that the critical issues in relevant market definition—(1) what products are sufficiently close substitutes to compete effectively in each other's market (definition of "relevant product market"); (2) what firms are sufficiently proximate to others in spatial terms to compete effectively (definition of "relevant geographic market"); and (3) what substitute sources of supply can be diverted promptly and economically to offer effective competition ("supply substitutability")—are all matters of degree that are extremely difficult to measure.

Although it has been over fifteen years since the Supreme Court addressed a relevant market issue,[5] relevant market definition has become the center of a major policy debate. This has occurred in part because the 1982 and 1984 Department of Justice Merger Guidelines[6]

1. 15 U.S.C. § 2 (1988).

2. Id. § 18.

3. Id. § 1.

4. See infra notes 24–41 and accompanying text; Compare United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 386 (1956) (ignoring potential submarkets). with United States v. Grinnell Corp., 384 U.S. 563, 571 (1966) (finding excessively narrow submarkets). See generally L. Sullivan, Handbook of the Law of Antitrust 61–67 (1977) (exploring possible explanations for seemingly contrasting decisions defining product markets).

5. The last discussion of relevant market definition is in United States v. General Dynamics Corp., 415 U.S. 486 (1974).

6. Department of Justice Merger Guidelines, 4 Trade Reg. Rep. (CCH) ¶ 13,102 (June 14, 1982) [hereinafter 1982 Merger Guidelines]; id. ¶ 13,103 (June 14, 1984) [hereinafter 1984 Merger Guidelines].

(the "Guidelines") departed in major respects from existing law relating to relevant market definition. In addition, there has been some powerful scholarship urging radically different approaches to the issue.[7] Finally, the enforcement agencies during the Reagan Administration and several courts have adopted some of the more controversial aspects of both the Guidelines and the scholarship in defining relevant market in the merger area.[8]

In many respects, the Guidelines and the scholarship on which they are based offer important insights and substantially improved formulations of relevant market issues. There is little question that relevant market definition was a more coherent exercise during the 1980s than in previous decades, and that can be attributed in part to the orderly, intellectual approach of the Guidelines. But too many of the departures from existing law adopted in these new formulations have tended to expand relevant markets and thus diminish apparent market power. Also, these new approaches adopt some tests of market power that, even when valid theoretically, are complex and impractical, making the new formulations extremely difficult to implement.

Why have these new approaches to relevant market definition that diminish market share attracted so much support? It is partly a reaction to accumulated experience. Although there was no reason why prior relevant market approaches should have consistently overstated market power, those approaches did produce in many instances excessively, and sometimes ludicrously, narrow market definitions.[9] Beyond that, however, there is an important policy dimension. Most of the advocates of revised approaches to relevant market definitions that result in diminished market shares also believe that antitrust enforcement has interfered unduly with legitimate business conduct, and that long-run market forces cure occasional market imperfections more effectively than government or private lawsuits.[10] By modifying relevant market

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7. Leading examples include: R. Posner, Antitrust Law: An Economic Perspective 55–56 (1976); Landes & Posner, Market Power in Antitrust Cases, 94 Harv. L. Rev. 937 (1981); Stigler & Sherwin, The Extent of the Market, 28 J. L. & Econ. 555, 572–73 (1985).

8. See infra notes 87–125 and accompanying text.

9. See, e.g., Reynolds Metals Co. v. FTC, 309 F.2d 223, 227 (D.C. Cir. 1962) (submarket limited to florist foil); A.G. Spalding & Bros. v. FTC, 301 F.2d 585, 588, 597 (3d Cir. 1962) (relevant submarkets defined as, for example, high-priced iron golf clubs and low-priced baseballs); United States v. Blue Bell, Inc., 395 F. Supp. 538, 543 (M.D. Tenn. 1975) (submarket for industrial-grade rental garments).

10. Assistant Attorney General Baxter, the moving force behind the Department of Justice Merger Guidelines revision, offered that justification for a relevant market analysis leading to broader market categories in testimony before the Senate Judiciary Committee: "[The new Guidelines reflect] a change in legal and judicial attitudes concerning the utility of more rather than less Government intervention and concerning the extent to which markets, in general, behave effectively and desirably to achieve efficient resource allocation." Oversight of Government Merger Enforcement Policy: Hearing Before the Senate Comm. on the Judiciary, 97th Cong., 2d Sess. 41–44 (1982). Also, in

analysis so as to diminish the appearance of market power, these advocates seek to achieve a result that many of them have described candidly as their goal—the removal of antitrust enforcement as an impediment to all business transactions except outright cartels, mergers leading directly to monopoly power, and some unusual types of predatory conduct.[11]

The 1980s witnessed a radical relaxation of government enforcement in the merger area. Although there were roughly six times as many mergers of substantial size in 1987 compared to 1979, there was roughly one-third as much government enforcement.[12] A significant reason for the downturn in merger enforcement in the 1980s was that market power was defined by the enforcement agencies and some courts in such a way as to make many mergers appear innocuous in competitive terms. A related concern is that even if substantive merger policy is tightened in the 1990s—and there are many indications that the Bush administration will move in that direction[13]—an extremely lenient enforcement program will continue unless the developing tendencies in relevant market definition by the courts are arrested.[14]

Part I of this Article examines the relevant market analysis contained in leading Supreme Court cases, and describes some inconsistencies and inadequacies in that analysis. Part II reviews the formulation presented in, and offers some criticisms of, the Department of Justice Guidelines and post-Guidelines enforcement decisions and cases. Part III suggests an alternative formulation that is intended to preserve the valid insights of the Guidelines, but reduce the errors oc-

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an influential piece of scholarship on the subject, Professors Landes and Posner justify their approach to relevant market definition because it will in most cases "reduce or eliminate the inference of market power drawn from market share data." Landes & Posner, supra note 7, at 950.

11. See R. Bork, The Antitrust Paradox 406 (1978); Kovacic, Federal Antitrust Enforcement in the Reagan Administration: Two Cheers for the Disappearance of the Large Firm Defendant in Nonmerger Cases, 12 Res. L. & Econ. 173, 175 (1989); Pitofsky, Antitrust in the Next 100 Years, 75 Calif. L. Rev. 817, 818 (1987). Another way to state the point is that these critics believe that economic markets are broad rather than narrow and that government enforcement policy should reflect that fact, within a less intrusive antitrust regulatory system. Either way, the Guidelines and some of the scholarship seek to change relevant market definition in order to diminish the role of antitrust enforcement.

12. Krattenmaker & Pitofsky, Antitrust Merger Policy and the Reagan Administration, 33 Antitrust Bull. 211, 212–13 (1988).

13. See Rill, Antitrust Enforcement: An Agenda for the 1990s, 57 Antitrust & Trade Reg. Rep. (BNA) 671, 672 (1989); Steiger, Agenda for the Federal Trade Commission, 57 Antitrust & Trade Reg. Rep. (BNA) 674 (1989).

14. Market definition leading to broad markets is not necessarily antithetical to vigorous merger enforcement. Occasionally a broad market will draw into a horizontal overlap companies that, with a different market definition approach, would not be seen as competing at all. But that is rare, and even when it occurs, the merger will survive if the market is broad enough.

casioned by the preference of its drafters for an approach that creates excessively broad markets.

I. Pre-Guidelines Approach

Many of the problems that have plagued definition of relevant market in the antitrust field can be traced to the inherent difficulty of measuring market power, and to the inadequate analysis used in three important Supreme Court decisions. Various problems have emerged as a result of the inconsistent approaches taken in these cases.

A. *Conventional Approach and Its Defects*

Market power consists of the ability of a firm or group of firms to raise its price above competitive levels without soon losing a substantial portion of business to existing rivals or firms that become rivals as a result of the price increase. If it were possible to measure market power directly—for example, by comparing prices at which sales occur with theoretically competitive prices—market power measurement would be simple. Unfortunately, direct measures are impractical because they rely on concepts such as marginal cost and elasticity of demand that are virtually unknowable.[15]

Because market power is not ascertainable directly, it has come to be measured by a three-step process. First, a market is "defined" by describing those products and production processes that are sufficiently close substitutes such that if a firm or group of firms tried to raise its price substantially on any product in that market, it would promptly lose substantial business to these substitutes. Second, the percentage share of the firm or group of firms in that market is computed. Finally, it is presumed that a high percentage share of a "market" indicates the presence of market power.[16] Thus, as Judge Hand observed in *United States v. Aluminum Co. of America*,[17] in a famous comment on market power, "[over ninety percent] is enough to constitute a monopoly; it is doubtful whether sixty or sixty-four percent would be enough; and certainly thirty-three percent is not."[18]

There are two critical defects to this approach. Most important, it

15. See 2 P. Areeda & D. Turner, Antitrust Law ¶¶ 507–514 (1978).

16. See, e.g., United States v. Pabst Brewing Co., 384 U.S. 546, 552–53 (1966); Brown Shoe Co. v. United States, 370 U.S. 294, 345–46 (1962). In the presence of barriers to new entry, this presumption is fair. If a firm or group of firms has a substantial market share and attempts to raise prices, small competitors in the market ordinarily will find it difficult to increase production sufficiently to make the price rise unprofitable. Also, substantial market share is usually accompanied by other market strengths—capital resources, reputational advantages, and consumer loyalty. Of course, if there are no barriers to entry, there can be no market power. See H. Hovenkamp, Economics and Federal Antitrust Law 58–59 (1985).

17. 148 F.2d 416 (2d Cir. 1945).

18. Id. at 424.

does not necessarily follow that a firm accounting for 90% of sales in a properly defined market has substantial market power, nor that a firm with only 30% of sales in a properly defined relevant market lacks market power.[19] A second defect concerns the all-or-nothing way in which sources of supply are included in or excluded from the market.

When a firm holds 90% of a market at prevailing prices, it may not be worth the effort for rivals to challenge the firm for sales in that market. But if the incumbent with a 90% market share attempts to raise prices above a competitive level—that is, to exercise market power—rivals presently satisfied to serve slightly different classes of customers or slightly different market areas might promptly respond. For example, a firm may have developed computer equipment and associated software designed exclusively to control inventory in a particular industry. Because of the quality of its equipment, concentrated marketing efforts, and reputation, it may secure a dominant position as a supplier at prices offering a fair return on investment. But if that company raised its prices substantially, scores of companies in adjacent supply markets could slightly modify their computer design, generate or copy the necessary software, and in a matter of months become effective competitors. Even with 90% of current sales, the dominant company lacks market power.

At the other end of the market power spectrum, a firm with only 30% of the market may have considerable market power. For example, a firm far more efficient than its rivals would have market power if it could reduce its prices to a level still above its relatively lower costs (defined to include a reasonable profit), and drive all competitors out of business. Nevertheless, it might choose to keep its prices high, serve only a fraction of the potential market, and exploit its market power in the form of high profits. Properly analyzed, a firm that serves 90% of the market at a 10% profit does not necessarily have more market power than a firm that serves 60% of the market at a 20% profit or 30% of the market at a 30% profit. Each of these different levels of market occupancy may be available to the same firm as a result of its market power; indeed, its market power consists in large part of the ability to pursue successfully any of the three approaches without effective interference by rivals.

While percentage shares of a market do not invariably determine the extent of a firm's market power, it is essential not to exaggerate the point. High market shares occasionally must be shaded or modified to account for sellers currently not in the market who could easily and profitably divert current production in response to a price change.

19. See Broadway Delivery Corp. v. United Parcel Serv. of Am., Inc., 651 F.2d 122, 129 (2d Cir.) (correctly observing that market share is not conclusive on question of market power), cert. denied, 454 U.S. 968 (1981); Ball Memorial Hosp. v. Mutual Hosp. Ins., 784 F.2d 1325, 1335 (7th Cir. 1986); Energex Lighting Indus. v. North Am. Philips Lighting Corp., 656 F. Supp. 914, 921 (S.D.N.Y. 1987).

Most effective potential competitors, however, have some sales in the market at present or in the recent past; if the market were completely untried, these potential rivals rarely would constitute an effective check on currently active sellers. Hence, some of their sales would be taken into account in the initial process of computing market shares. Even if the competitive potential of "outsiders" is not fully accounted for in the traditional market definition process, that defect can be rectified by a fairly simple adjustment process.[20]

On the other hand, if a company has considerable market power, it usually will convert that market power into an expanded market share. There are exceptions, of course, due to limited raw materials, processes efficient only at low scales of production, or even intentional avoidance of high market share to avoid antitrust enforcement. But in those rare cases in which there is a legitimate concern that low market shares understate market power, an adjustment process is again available that can avoid such errors.

The second defect with the conventional market definition approach relates to the way in which its results have been perceived. Because the result of step two in the conventional three-step process[21] is a single percentage figure, it generates an erroneous impression of accuracy and reliability. In fact, the determination whether to include a product or cluster of products in the relevant market is almost always based on rough estimates. If all of the products at issue are included, market power is usually understated, while excluding all the products at issue often results in overstatement.[22] Moreover, the key decision to include or exclude often depends on fact determinations that are largely speculative—for example, whether a substantial number of current customers would switch to an alternative product or source of products if prices were raised. Finally, tentative market definitions are subject to considerable erosion because of changes over time, and in particularly dynamic, technologically advanced markets, this erosion can be substantial.[23]

The tendency to see relevant market definition as an all-or-nothing proposition rather than as an array of estimates with no market description being exactly right has led to the most serious errors in antitrust

20. See infra notes 184–229 and accompanying text.

21. See supra note 17 and accompanying text.

22. For example, consider geographic market definition problems where alternative sources of supply—for example, retail gas stations—stretch off in a continuum from perfect substitutability to inadequate substitutability. Rough estimates of geographic market (e.g., city-wide, county-wide, state-wide) will almost invariably measure market power with limited precision.

23. See, e.g., Transamerica Computer Co. v. IBM, 481 F. Supp. 965, 981–82 (N.D. Cal. 1979) (by time of trial, previously dominant IBM found to have only 57% of computer systems market and even that share was falling), aff'd, 698 F.2d 1377 (9th Cir.), cert. denied, 464 U.S. 955 (1983); cf. United States v. Continental Can Co., 378 U.S. 441, 458, 465–66 (1964) (requiring that elasticity be examined on a long-run basis).

enforcement. A single percentage figure representing market share probably is unavoidable, but excessive reliance on that figure—the error of perception—can be corrected. Moreover, there is no reason to believe that errors of overexclusion will exceed errors of underinclusion, and therefore there is no justification for different approaches to market definition designed to underestimate market power.

B. *Market Definition in the Supreme Court:* Cellophane, Brown Shoe, *and* Grinnell

Various conventional approaches to the definition of relevant market, the contradictions among them, and the defects of each can be traced to three leading Supreme Court cases. In *United States v. E.I. du Pont de Nemours & Co.*,[24] commonly referred to by commentators as *Cellophane*, du Pont was charged with monopolizing the manufacture and sale of cellophane in violation of section 2 of the Sherman Act. The Government argued that cellophane was the relevant product market, and that du Pont accounted for a 75% market share, with Sylvania, du Pont's sole competitor, accounting for the remainder. Du Pont countered that a proper relevant market was all flexible wrapping materials, including wax paper, glassine, pliofilm, and saran wrap, and that du Pont accounted for less than a 20% market share.[25] Although there were findings that cellophane had significant differences from other flexible packaging materials, cost two to three times as much per surface measure as its chief competitors, and was the only flexible packaging material suitable to the needs of certain users (particularly cigarette manufacturers),[26] the Court nevertheless concluded that the proper market included all flexible packaging materials.[27]

The Court's reasoning turned on the concept of "cross-elasticity of demand." It found that a slight increase or decrease in the price of cellophane caused a "considerable number of customers of other flexible wrappings to switch,"[28] demonstrating that the products competed in the same market. Complaining that the majority had "virtually emasculate[d]" section 2 of the Sherman Act, the dissenters emphasized three points: du Pont's profits on cellophane were unusually high (net return after taxes of 15.9%); du Pont's purported competitors had appeared indifferent to increases or decreases in the price of cellophane in the past; and some end users were not in a position to switch to substitute wrapping materials and were "entitled to [the benefits of] competition within the cellophane" market.[29]

Two features of the *Cellophane* approach deserve comment. First,

24. 351 U.S. 377 (1956).
25. Id. at 379.
26. Id. at 397–401.
27. Id. at 400.
28. Id.
29. Id. at 414, 416–17, 420, 424–25 (Warren, C.J., dissenting).

the majority surely was correct in declining to carve out a separate market simply because there were some classes of users for whom cellophane was a preferred product. As long as substantial classes of customers existed who were in a position to switch easily and promptly in response to price increases or decreases ("precarious users"),[30] the ability of those users to switch protected the competitive interests of those with a strong preference for cellophane over any substitutes ("captive users").

The only situation in which that conclusion might not hold would be when the seller could discriminate in price between the "precarious" and "captive" users. Discrimination may be difficult if the class of customers buying at a lower price can engage in "arbitrage"—i.e., buying a product in quantity and reselling it to other users. But if arbitrage is not feasible and discrimination can occur, then a narrower market definition focusing on the competitive alternatives available to a substantial subclass of users may be justified.

The majority's approach in *Cellophane* is seriously flawed, however, because of its failure to take du Pont's considerable profits into account. As many commentators have noted,[31] the reason why various classes of customers of cellophane might have been willing to switch to substitute products if du Pont raised its prices was that du Pont was already charging high prices, thus extracting monopoly profit on its cellophane sales. Indeed, it would be expected that a shrewd monopolist would price its product exactly at the point at which, if it raised prices any further, it would lose a substantial amount of business. Thus, the Court's finding that a large number of purchasers would switch to or from cellophane as a result of price decreases or increases does not settle the market power question; on the contrary, the fact that du Pont earned profits substantially above average is direct and more reliable evidence of the fact that it did enjoy market power.

In 1962, six years after *Cellophane*, the concern stressed by the dissenters that subclasses of customers deserve protection attracted a majority. In *Brown Shoe Co. v. United States*,[32] the first section 7 merger case after the Clayton Act had been amended in 1950, the Court addressed the question of definition of relevant product market. The issue was whether a merger of Brown Shoe and Kinney, two shoe manufacturers with retail outlets, would have anticompetitive horizontal or vertical effects. The Court cited with approval the "cross-elasticity of demand"

30. That was the case with respect to most end users of cellophane. See id. at 399–400.

31. See, e.g., P. Areeda & H. Hovenkamp, Antitrust Law ¶ 518.2C (Supp. 1989); R. Posner, supra note 7, at 55–56; Elzinga, Defining Geographic Market Boundaries, 26 Antitrust Bull. 739, 744 (1981); Turner, Antitrust Policy and the Cellophane Case, 70 Harv. L. Rev. 281, 308–10 (1956); Note, The *Cellophane* Fallacy and the Justice Department's Guidelines for Horizontal Mergers, 94 Yale L.J. 670, 676–77 (1985).

32. 370 U.S. 294 (1962).

approach of *Cellophane*, but immediately noted that within a "broad market, well-defined submarkets may exist which, in themselves, constitute product markets for antitrust purposes."[33] Instead of directly addressing the question of how to reconcile concern for competitive opportunities of captive user subclasses with the perception that market power does not exist if significant numbers of precarious users will react to a price rise by shifting to substitute products, the Court simply listed a roster of factors to determine discrete markets: "The boundaries of such a submarket may be determined by examining such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors."[34]

Several of these factors are derived from the analytical approach in *Cellophane*, in which the majority stressed factors like peculiar characteristics and uses and distinct prices. Other factors, such as whether there are distinct customers, are problematic. The question should not be whether customers are "distinct," but rather whether they are in a position to switch to substitutes, or whether their interests are protected by other customers who will switch. Still other factors seem decidedly marginal on the question of market definition, such as whether the industry or the public recognizes the submarket as separate—presumably because there is a separate trade association, newsletter, or Standard Industrial Classification (SIC) code. Such formalistic factors are not responsive to the question of whether buyers will switch in response to a substantial price change.

This factor list, like many others in antitrust law,[35] is presented without any indication of priority or weight to specific factors and it unquestionably has worked a good deal of mischief in relevant market definition in merger cases. Without a guiding theory, some courts and enforcement agencies have been attracted to the idea that if three factors pointed to a submarket and only one or two in the other direction, a submarket definition was justified.[36] Of course, if the two factors that pointed toward a broader market were production substitutability and sensitivity to price changes—more accurate indicators of supply or demand elasticity than other factors—narrow market definitions would be inappropriate.

Four years later, the Warren Court's tendency to protect narrow

33. Id. at 325.

34. Id.

35. See, e.g., United States v. Penn-Olin Chem. Co., 378 U.S. 158, 175, 177 (1964) (factor list to determine potential entry); Board of Trade v. United States, 246 U.S. 231, 238 (1918) (factor list for application of rule of reason).

36. See, e.g., ABA Antitrust Section, Monograph No. 12, Horizontal Mergers: Law and Policy 76–77 & n.373 (1986) (collection of other cases in which courts have found subclasses when only some of the *Brown Shoe* factors were present).

classes of consumers by defining markets narrowly became even more extreme. In *United States v. Grinnell Corp.*,[37] Grinnell and its subsidiaries were charged with monopolizing the supply of accredited central station protective services (CSPS), an alarm system designed to protect property from the hazards of burglary, fire, and water flow. The distinguishing characteristic of CSPS was that the device set off a signal in a central station staffed twenty-four hours a day, and the central station dispatched guards upon receipt of this signal or notified the police or fire department. This advantage led insurance companies to grant premium reductions when property was protected by a CSPS system.[38]

Grinnell argued that the market should include substitute protective systems such as systems that set off an audible alarm at the premises, watch-guard services, and proprietary systems that a customer purchases and operates. As commonly occurs in relevant market definition problems, the alternate services were different in terms of utility, efficiency, and reliability, and these differences were reflected in each system's price.[39]

Although purporting to follow the *Cellophane* test, the *Grinnell* majority in fact ignored findings that users switched between CSPS and its substitutes depending on price,[40] and instead fastened onto the fact that some classes of users, similar to the cigarette manufacturers singled out by the dissenters in *Cellophane*, had strong preferences for CSPS services:

> What defendants overlook is that the high degree of differentiation between central station protection and the other forms means that for many customers, only central station protection will do. Though some customers may be willing to accept higher insurance rates in favor of cheaper forms of protection, others will not be willing or able to risk serious interruption to their businesses, even though covered by insurance, and will thus be unwilling to consider anything but central station protection.[41]

The *Grinnell* approach is disturbing in several respects. First, a determination that there is a class of "captive" customers with strong preferences for a particular product could be the beginning but cannot be the end of the Court's analysis. There will almost always be classes of customers with strong preferences for physically distinguishable products, but to reason from the existence of such classes to a conclusion that each is entitled to the "protection" of a separate narrow market definition grossly overstates the market power of the sellers. Second, even if the existence of a class with intense preferences has

37. 384 U.S. 563 (1966).
38. Id. at 566–67.
39. Id. at 571–74.
40. Id. at 591–93 (Fortas, J., dissenting).
41. Id. at 574.

some significance, there is no indication in *Grinnell* of how large that class was or how much more members of the class would be willing to pay before substituting. If the captive class were large and its preferences intense, Grinnell might have had market power in the sense that it could raise its prices, lose some customers to substitute products, and still earn above-competitive profits. Only then would the existence of precarious users not protect adequately the interests of the captive users. Finally, the Court failed to examine whether Grinnell could discriminate among different classes of users, or whether it was earning substantially above-competitive profits. Since CSPS was a service, prices might be individually negotiated with users, making discrimination possible and arbitrage between preferred and nonpreferred customers impossible. There was also some evidence that Grinnell engaged in geographic price discrimination.[42] It is not clear, however, that Grinnell had the necessary information to determine which classes of customers would be willing to shift to substitute products or whether a policy of price discrimination among users in the same geographic area would be commercially feasible.

C. *Lower Courts' Responses to Relevant Market Questions*

The Supreme Court has not discussed the relevant market question in any extended way since *Grinnell* in 1966, and the first set of Department of Justice Guidelines on Mergers, issued in 1968, did little more than restate the price-characteristics-use test of *Cellophane*. Partly because controlling precedent was so difficult to reconcile, certain tendencies emerged in the way lower court judges addressed relevant market questions in merger cases.

1. Cellophane *Cross-Elasticity Test*. — Virtually all courts started with the *Cellophane* cross-elasticity of demand test, seeking to determine the extent to which buyers would switch to or from other suppliers given significant price changes.[43] An unfortunate tendency developed to rely on the *Brown Shoe* roster of factors rather than on the underlying supply and demand elasticities the factors were supposed to address. This approach produced frequent errors.[44] In merger enforcement particularly, there was a free and easy tendency in the cases to carve out scores and even hundreds of submarkets, often turning on little more than the preferences of small classes of buyers. This tendency was probably more responsible than any other rule of merger enforcement for the complaint that, at least in the 1960s and early 1970s, the "sole consistency . . . in litigation under § 7 [is] the Government always

42. Id. at 570.

43. See ABA Antitrust Section, Antitrust Law Developments (Second) 91–92 (1984).

44. See ABA Antitrust Section, supra note 36, at 76–78 (collection of cases).

wins."[45]

2. *Supply Substitution.* — The courts tended to pay inadequate attention to the possibility that if "market power" were exercised, sellers not presently in the market (for example, in adjacent but different product or geographic markets) would divert their sales, that unused capacity would come on stream, or that wholly new entry would occur.[46] This failure to pay attention to the "supply" side of relevant market analysis often resulted in an overstatement of market power.

3. *Profits.* — The courts consistently failed to pay any attention to the profitability of the firm or firms whose market power was being measured.[47] This led to an occasional significant understatement of the market power of sellers.

4. *All-or-Nothing Proposition.* — Finally, the courts regularly treated relevant market definition as an all-or-nothing proposition.[48] Substitutes either were included entirely or excluded based on a cross-elasticity of demand approach.

II. Guidelines Approach and Some Related Case Developments

The 1982 and 1984 Department of Justice Merger Guidelines represent a substantial departure from earlier guidelines and case law. They articulate a coherent rationale for antitrust merger law,[49] rely on some sophisticated economic concepts, and offer far more detail about likely government reactions to proposed mergers than did previously published guidelines.

A. *Summary of the Guidelines Approach*

1. *Market Definition.* — The Guidelines start with the concept of a hypothetical firm that is the only present or future seller of a relevant product or group of products that are good substitutes at prevailing prices, and ask whether the firm could profitably impose a small but

45. United States v. Von's Grocery Co., 384 U.S. 270, 301 (1966) (Stewart, J., dissenting).

46. See M. Handler, H. Blake, R. Pitofsky, & H. Goldschmid, Cases and Materials on Trade Regulation 169 (3d ed. 1990).

47. See the *Cellophane Case*, United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 385, 404 (1956); see also infra notes 161–165 and accompanying text (discussing profits).

48. See infra notes 155–159 and accompanying text.

49. In an introductory section, they assert that "[t]he unifying theme of the Guidelines is that mergers should not be permitted to create or enhance 'market power' or to facilitate its exercise." 1984 Merger Guidelines, supra note 6, § 1.

While relevant market definition cuts across virtually all antitrust enforcement, the Department of Justice Guidelines deal only with merger issues. Nevertheless, the approach of the Guidelines is bound to be influential in all contexts in which measurement of market power is an issue. See, e.g., Krattenmaker, Landes & Salop, Monopoly Power and Market Power in Antitrust Law, 76 Geo. L.J. 241, 254–57 (1987) (analyzing market power when "exclusionary practices" are at issue).

significant and nontransitory increase in price.[50] If it could not because buyers would shift to available alternatives, then the other products to which the buyers from the hypothetical monopolist would switch are in the "product market," and other firms in a different marketing area to which the buyers would switch are in the "geographic market."[51] The relevant market is the smallest group of products as to which, under this approach, the hypothetical monopolist could profitably raise prices.

The factors that the Guidelines use to determine if such switches would occur are conventional. With respect to product market definition, the Guidelines give weight to buyers' perceptions, similarities or differences in price movements between different sets of products over a period of years, similarities or differences in product characteristics, and evidence of sellers' perceptions.[52] With respect to geographic market definition, the Guidelines give weight to existing shipment patterns, evidence of buyers having actually shifted or considered shifting purchases among sellers at different geographic locations in the past, similarities or differences in price movements, transportation costs, costs of local distribution, and excess capacity of firms outside the location of the merging firm.[53]

The 1982 Guidelines used as a first approximation a hypothetical price increase of 5% and asked how many buyers would be likely to shift to other products in a period of one year.[54] The 1984 amendments, retreating from what it saw as "an unwarranted rigidity" in the 5% test,[55] noted that the 5% figure would be appropriate in most circumstances but at times the Department of Justice, depending on the nature of the industry involved, might postulate hypothetical increases of more or less than 5%.[56] By the late 1980s, it was widely understood among Washington insiders that the Department had moved to a 10% test.[57]

To examine what products would be drawn into the product market as a result of its hypothetical 5% (or 10%) test, the Department

50. 1982 Merger Guidelines, supra note 6, § II(A); 1984 Merger Guidelines, supra note 6, § 2.1. The 1984 Guidelines skip the first step of establishing a provisional market based on prevailing prices, and move immediately to the issue of reaction to hypothetical price increases.

51. 1982 Merger Guidelines, supra note 6, §§ II(A), (C); 1984 Merger Guidelines, supra note 6, §§ 2.11, 2.31.

52. 1982 Merger Guidelines, supra note 6, § II(A); 1984 Merger Guidelines, supra note 6, § 2.12.

53. 1982 Merger Guidelines, supra note 6, § II(C); 1984 Merger Guidelines, supra note 6, § 2.32.

54. 1982 Merger Guidelines, supra note 6, § II(B).

55. Department of Justice Statement Accompanying Release of 1984 Merger Guidelines, 4 Trade Reg. Rep. (CCH) ¶ 13,103, § 1 (June 14, 1984).

56. 1984 Merger Guidelines, supra note 6, § 2.11.

57. Briggs & Calkins, Antitrust 1986–87: Power and Access (Part I), 32 Antitrust Bull. 275, 305 (1987).

indicated that it might include firms not presently producing or selling the product.[58] Thus, firms that could shift their facilities "easily and economically" to sell in the relevant market within six months in response to a price increase would be included in the market.[59] Similarly, products consumed by vertically integrated firms (captive production) would be included, as well as durable (i.e., used) products that represented "good substitutes for new products."[60]

With respect to presently available substitutes, the Guidelines in most instances would include a firm's entire production of substitutes in the market if diversion of any portion of that production to the market could defeat a 5% price increase.[61] When the issue concerns production that is not presently available, but could be drawn into the market as a result of a hypothetical price increase, only the portion of production that would be likely to shift in response to a price increase would be included.[62]

The issue of how much substitute production to count in a market also arises with respect to geographic diversion. On this point, the Guidelines are unclear. The 1982 Guidelines suggested that if firms outside of a market would make substantial shipments to buyers in that market in response to a 5% price increase, the market definition would be expanded to incorporate those outside firms. The Guidelines recognize that a firm's capacity may be so committed elsewhere that it would not be available to respond to an increase in price in the first market,[63] perhaps suggesting (though rather ambiguously) that only the production that would actually shift into the provisionally defined market would be counted. The Guidelines could also mean that if capacity outside the market is not "committed" (for example, by long-term contract), then the entire firm's production would be counted in the relevant geographic market. The 1984 amendments address but do not clarify the point. The amendments specify that only export sales likely to be made or capacity likely to be used would be included in the market,[64] but then emphasize that exports to the United States, one form of geographic diversion, will be treated the same as divertible domestic sources from which, at least as to presently available sources, all pro-

58. 1982 Merger Guidelines, supra note 6, § II(B)(1); 1984 Merger Guidelines, supra note 6, § 2.21.

59. 1982 Merger Guidelines, supra note 6, § II(B)(1); 1984 Merger Guidelines, supra note 6, § 2.21.

60. 1982 Merger Guidelines, supra note 6, §§ II(B)(2), (3); 1984 Merger Guidelines, supra note 6, §§ 2.22, 2.23.

61. 1982 Merger Guidelines, supra note 6, § II(B); 1984 Merger Guidelines, supra note 6, § 2.11.

62. 1982 Merger Guidelines, supra note 6, § II(D); 1984 Merger Guidelines, supra note 6, § 2.4 (only "sales likely to be made or capacity likely to be used in the market in response to a[n] . . . increase in price" will be included).

63. 1982 Merger Guidelines, supra note 6, § II(D).

64. 1984 Merger Guidelines, supra note 6, § 2.4.

duction would be counted.[65]

The Guidelines address the question of sellers' capacity to discriminate, both in terms of defining relevant product and relevant geographic markets. The Guidelines recognize that sellers who can discriminate can raise prices for specific groups of customers who cannot seek protection in substitute products or in firms presently outside the market.[66] The Guidelines conclude that when price discrimination is practicable, the Department will consider defining "additional, narrower relevant product markets" to protect the interest of those buyer groups subject to the exercise of market power.[67]

2. *Thresholds of Legality Under the Guidelines.* — Once the relevant market has been defined, the Guidelines turn to the questions of market concentration and market share. Unlike the 1968 Guidelines, which examined concentration by looking at the market share of the top four firms in a market, the 1982 and 1984 Guidelines compute market concentration and market shares by the Herfindahl-Hirschman Index (HHI). The HHI is calculated by summing the squares of the market shares of each firm in the market.[68] For example, in a market with ten equally sized firms, the HHI is 1,000 (10 squared, or 100, for each of ten firms), while in a market with five equally sized firms, the HHI is 2,000 (400 for each of five firms).

The Guidelines describe different enforcement attitudes depending on firm size and concentration after the merger. Thus, if two firms in a market with five equally sized firms merged, the HHI for the market after the merger would be 2,800 (1,600 for the merging firms, which is 40 squared, plus three firms of 400 each). The increase in the HHI would be 800—the difference in industry concentration before and after the merger.

If the postmerger HHI for a horizontal merger is below 1,000, the Guidelines would treat it as an unconcentrated market, and the Department of Justice has stated its intention almost never to challenge such a merger.[69] Thus, HHIs below 1,000 fall within a "safe harbor." At the other extreme, the Guidelines state that the Department will almost always challenge mergers when the increase in the HHI exceeds 100 and the postmerger HHI exceeds 1,800.[70] When the HHI falls between 1,000 and 1,800 and the increase is more than 100 points, the Guide-

65. 1984 Merger Guidelines, supra note 6, § 2.31.

66. 1982 Merger Guidelines, supra note 6, §§ II(A), (C); 1984 Merger Guidelines, supra note 6, §§ 2.13, 2.33.

67. 1982 Merger Guidelines, supra note 6, §§ II(A), (C); 1984 Merger Guidelines, supra note 6, §§ 2.13, 2.33.

68. 1982 Merger Guidelines, supra note 6, § III(A); 1984 Merger Guidelines, supra note 6, § 3.1.

69. 1982 Merger Guidelines, supra note 6, § III(A)(1); 1984 Merger Guidelines, supra note 6, § 3.11.

70. 1982 Merger Guidelines, supra note 6, § III(A)(1); 1984 Merger Guidelines, supra note 6, § 3.11.

lines state that the Department is likely to challenge.[71]

In all categories, but particularly in the moderately concentrated category between 1,000 and 1,800, the Government will look to a broad range of other factors in attempting to predict the merger's effect on competition. The most important factor appears to be ease of entry.[72] Other factors affecting the significance of market shares and concentration include whether the product involved is homogeneous (thereby making collusion easier),[73] conduct of firms in the market (suggesting propensity to collude),[74] and market performance, such as the stability of market shares (suggesting that collusion is occurring).[75] In exercising prosecutorial discretion, the Government will take into account a claim of specific efficiencies created by the merger as a mitigating factor,[76] and the Guidelines also provide for a failing company and failing division defense.[77]

B. *Some Reservations Concerning the Market Definition Process Under the Guidelines*

The Department of Justice Guidelines, and in particular the portions dealing with market definition, are a formidable achievement. They present a comprehensive approach to the question of relevant market definition, and, by focusing on the capacity for the future exercise of market power, they ask a central question that often had been inadequately treated in the past. Also, the integrated view of relevant market issues, all keyed to the question of ability to exercise market power, avoids the *Brown Shoe* "list of factors" that had proven impossible to implement.[78] By emphasizing the "ability to discriminate," rather than incorporating an open-ended submarket concept, they tie the "market power" concept to a sensible analytical base. Finally, by focusing on the seller's ability to raise prices, rather than on the price and characteristics of particular products, they avoid the pitfalls of excessively narrow submarkets.

Unfortunately, in several key respects, the Guidelines opt for mar-

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71. 1982 Merger Guidelines, supra note 6, § III(A)(1); 1984 Merger Guidelines, supra note 6, § 3.11.

72. 1982 Merger Guidelines, supra note 6, § III(B); 1984 Merger Guidelines, supra note 6, § 3.3.

73. 1982 Merger Guidelines, supra note 6, § III(C)(1); 1984 Merger Guidelines, supra note 6, § 3.411.

74. 1982 Merger Guidelines, supra note 6, § III(C)(3); 1984 Merger Guidelines, supra note 6, § 3.44.

75. 1982 Merger Guidelines, supra note 6, § III(C)(4); 1984 Merger Guidelines, supra note 6, § 3.44.

76. 1982 Merger Guidelines, supra note 6, § V(A); 1984 Merger Guidelines, supra note 6, § 3.5.

77. 1982 Merger Guidelines, supra note 6, § V(B); 1984 Merger Guidelines, supra note 6, § 5.1.

78. See supra text accompanying note 34.

ket definitions that are overinclusive, and therefore systematically create the appearance of diminished market power. They also envision a process that is theoretically justifiable but often impractical. The following are some specific aspects of the Guidelines that might have been treated differently.

1. *Historical Data Versus Hypothetical Possibilities.* — In measuring market power, the Guidelines quickly pass over evidence of real events such as past prices and shipment patterns, and emphasize instead hypothetical estimates.[79] In measuring hypothetical substitute sources of supply, the Guidelines are unclear as to whether the appropriate test is whether these sources would, as opposed to might, appear in response to a price increase.

2. *Market Redefinition Versus Market Adjustment.* — The Guidelines strike a useful compromise on whether to include the entire production of substitute firms in the market (in effect, redefining the market to include additional suppliers) or only that portion of sales likely to be made or capacity likely to be used. All presently *available* production is included unless it is "committed" elsewhere, presumably committed by contract.[80] When presently *unavailable* production is at issue (e.g., supply substitutes, diversion of captive sources, expansion of fringe capacity), only that portion of sales likely to be made or capacity likely to be used will be included.[81] When geographic diversion is at issue, it is not clear under the Guidelines whether redefinition or adjustment is intended. The Guidelines seem open to the erroneous interpretation that all sales from outside sources should be counted as part of the market.

When the Guidelines call for adjustments in market share, only adjustments leading to the reduction of tentative market shares are anticipated;[82] adjustments that justifiably might lead to increasing tentative market shares are ignored.

3. *Profits.* — The market definition sections of the Guidelines totally ignore the question of whether a seller or group of sellers earns an unusually high return on investment. By ignoring the "profit" ques-

79. The 1982 Merger Guidelines use historical data only for a provisional market definition, moving quickly to emphasize hypothetical estimates. 1982 Merger Guidelines, supra note 6, § II(B). The 1984 Merger Guidelines state that historical market information must often be relied upon, but that "the Guidelines are fundamentally concerned with probable future demand or reply responses." 1984 Merger Guidelines, supra note 6, § 2.0.

80. 1982 Merger Guidelines, supra note 6, § II(D); 1984 Merger Guidelines, supra note 6, § 2.4.

81. 1982 Merger Guidelines, supra note 6, § II(D); 1984 Merger Guidelines, supra note 6, § 2.4.

82. Thus, apparent market shares based on a tentative market definition can be reduced by inclusion in the market of production substitutes, durable products, or captive production and consumption. See 1982 Merger Guidelines, supra note 6, §§ II(B)(1)–(3); 1984 Merger Guidelines, supra note 6, §§ 2.21–2.23.

tion, companies that already have and are exercising market power may appear as if they face considerable competition.[83] It is surprising that Guidelines which are so sophisticated in economic terms would have failed entirely to take into account this aspect of market definition.

4. *Five Percent Test.* — The test of market power based on ability to sustain profitably a "small but significant and nontransitory increase in price" makes great sense, and some threshold figure is essential.[84] A 5% figure is generous when viewed in terms of average United States profits, however, and the 10% figure, adopted in practice, is hard to justify.

5. *Cluster Markets.* — A difficult question is whether clusters of products or services, not substitutable in themselves, might constitute a separate product market because of the tendency of customers to make all their purchases at one time and at one place.[85] The Guidelines bypass this issue entirely, presumably concluding that such markets cannot exist, and thereby eliminate a market configuration that might support a finding of substantial market power.

C. *Case Law and Enforcement Decisions Under the Guidelines*

Reacting to the Guidelines' emphasis on what might happen in response to a small but substantial hypothetical price increase, some courts, and the enforcement agencies, appear to have made a subtle shift in approach to the question of measuring demand elasticity and the related questions of substitute competition and new entry in some important merger decisions in the 1980s. These changes involve an emphasis on future hypothetical shifts in purchasing or supply patterns rather than on evidence of past practices to determine elasticity and, with respect to those hypothetical shifts, the framing of the key question in terms of whether substitutes might or could, rather than would, appear in the market.

Six of those cases and enforcement decisions are summarized below.

1. United States v. Waste Management, Inc.[86] — The Government challenged under section 7 of the Clayton Act a merger of two commercial waste haulers in Dallas, producing a postmerger market share of 48.8% in the Dallas market. The controlling question was whether Dallas was a separate, relevant geographic market, or whether the market should include Fort Worth. The district court found that the travel time between Dallas and Fort Worth was about forty-five to fifty minutes, and that trash haulers in each city did little or no business in the

83. See infra notes 172–175 and accompanying text.

84. 1982 Merger Guidelines, supra note 6, § II(A); accord infra notes 142–150 and accompanying text.

85. See infra notes 230–239 and accompanying text.

86. 743 F.2d 976 (2d Cir. 1984).

other city.[87] There had been some new entry into the market by individuals who purchased a single truck and competed for business. In addition, one firm (SCM) in Fort Worth had bid for a contract in Dallas, and when it won the bid, it leased a garage and located some trucks in the new market.[88] On the grounds that Dallas was a separate geographic market because of the absence of cross-service between trash haulers in the two cities, and because small-scale entry was not sufficient to overcome such large market shares, the district court found a violation of section 7.

The Second Circuit reversed. It focused on the Guidelines' question of whether Fort Worth trash haulers could compete in Dallas if the price of trash collection in that city rose above competitive levels. Noting that single-truck operations had entered the market and that Fort Worth firms, like SCM had, could bid on Dallas contracts and lease garage space and assign trucks to service remote customers, the court of appeals concluded that Dallas-Fort Worth was a single market.[89]

The Second Circuit's approach to the market definition questions is troublesome. Entry into the market apparently was limited to single-truck operations. There had been evidence in the trial record that there are efficiencies of scale in trash collection and that the single-truck operators were considerably less efficient than larger outfits.[90] Additionally, single-truck firms could not bid effectively for "high-end" business such as trash collection for large apartment complexes and shopping malls. Hence the ability of this "new entry" to frustrate cartel pricing is questionable. As to firms in Fort Worth doing business in Dallas in the event of an increase in price, the court's conclusion was entirely speculative because only a single firm had made such a move. There was no analysis of whether that firm accounted for a significant share of Dallas business, or if it even made a profit at its outpost operation. Moreover, there was no evidence, again only speculation, of whether a 5% price increase would be sufficient to induce others to pursue a similar strategy in the near future.

2. In re Echlin Manufacturing Co.[91] — *Echlin* is interesting because it is the most explicit decision in the 1980s advocating a new approach to relevant market definition. In addition, it not only states a rule to decide a particular case, but also presumably reflects Federal Trade Commission enforcement policy following the publication of the Guidelines.

Echlin, with 10% of the market for the assembly and resale of carburetor kits, acquired a division of Borg-Warner that held a 36% share

87. Id. at 980.
88. Id. at 983.
89. Id.
90. See Schmalensee, Ease of Entry: Has the Concept Been Applied Too Readily?, 56 Antitrust L.J. 41, 45 (1987).
91. 105 F.T.C. 410 (1985).

of that market. The top six firms in the industry accounted for 95% of sales. The postmerger HHI[92] was about 3,000, with an increase as a result of the merger of about 750 points. Nevertheless, the Commission voted 4-1 that there was no violation.[93]

The majority tentatively accepted a relevant product market definition consisting of assembly and sale of carburetor kits but then concluded that there were no barriers to entry and, therefore, that the "market definition" was meaningless for antitrust enforcement purposes. It rejected the contention that barriers to entry are high whenever it is unlikely that new firms will decide to enter a market. Instead, it concluded that any such definition of barriers had been overtaken by subsequent scholarship and opted for the view, attributed to George Stigler, that a barrier is defined as "additional long-run costs that must be incurred by an entrant relative to the long-run costs faced by incumbent firms."[94] The opinion cited only government licenses and patents as serious barriers; other traditional barriers may delay entry, but unless that delay is extremely lengthy, they are not barriers at all because the market had previously imposed the same costs or risks on the incumbents when they entered the market.[95]

The historical record on entry into the carburetor kit market was ambiguous. In the previous decade, there had been five instances of entry, but all on a small scale; the combined market share of all five new entrants was less than 2%.[96] The majority fastened upon the argument, however, that if prices rose, these new entrants and many others were capable of expanding from their fringe base or entering the market; all they need do is incur the same costs as the incumbents.[97] Whether they would do so (e.g., acquire equipment, publish catalogs, and develop promotional aids) in response to a price increase of 5% was not addressed. Indeed, under the Commission's interpretation of the "Stigler test," the question need never be addressed because all firms are "in the market" or likely entrants as long as they do not have to pay a substantial penalty compared to the incumbents in order to enter.

3. United States v. Calmar, Inc.[98] — The Department of Justice sought to enjoin a merger of Calmar and Realex, two manufacturers of plastic sprayers and dispensers. If these mechanical pump devices were relevant product markets, the combined market share of the companies in the regular sprayer market would be 83% (HHI of above 7,100) and

92. For an explanation of the HHI index, see supra notes 68–77 and accompanying text.

93. *Echlin*, 105 F.T.C. at 492.

94. Id. at 485; accord G. Stigler, The Organization of Industry 67 (1968).

95. *Echlin*, 105 F.T.C. at 486.

96. Id. at 498–99 (Bailey, Comm'r, dissenting).

97. Id. at 486.

98. 612 F. Supp. 1298 (D.N.J. 1985).

in the dispenser market 79% (HHI of over 6,400).[99] Noting that manufacturers of other types of sprayers could easily switch over to the manufacture of plastic dispensers and sprayers, the court chose to expand the relevant market to include these other devices.[100] Supply substitution had not occurred in the past, but production techniques were similar and there was expert witness testimony that substitution could occur.

Even in the larger market, however, the merging parties would have a 50% market share and the HHI would increase about 700 points to 3,000. The district court, citing *Waste Management*,[101] declined to enjoin the merger.[102] It noted that there were no controlling patents and that a $500,000 investment would be adequate to build a production facility within six months.[103] If the merging parties attempted to raise prices, customers could form joint ventures with existing small producers, make their own plastic pump dispensers, or rely on completely new entry to undermine the increase. Again, these possible developments were entirely speculative; there was no evidence to support a finding that such entry would occur at a price increase in the range of 5%.

4. Laidlaw Acquisition Corp. v. Mayflower Group, Inc.[104] — Laidlaw attempted a hostile takeover of Mayflower, its principal competitor in supplying private contract bus services to school children. In the relevant geographic markets, the combined market shares would have been 76.2% in Alaska and 85.9% in the Pacific Northwest.[105] Nevertheless, the Federal Trade Commission declined to challenge the transaction, primarily on the grounds that school districts could provide their own transportation if prices increased and that new competitors could enter the market.[106]

When the Commission failed to act, the target company challenged the merger in a private suit. The only expert witness testified that the private contractor market was separate, and noted that for practical and political reasons, school districts rarely, if ever, returned to providing bus transportation once they had "gone private."[107] The court also found significant barriers to entry: insurance costs, high capitalization

99. Id. at 1300.

100. Id. at 1304.

101. United States v. Waste Management, Inc., 743 F.2d 976 (2d Cir. 1984).

102. *Calmar*, 612 F. Supp. at 1307. See supra notes 86–90 and accompanying text.

103. *Calmar*, 612 F. Supp. at 1305–06.

104. 636 F. Supp. 1513 (S.D. Ind. 1986).

105. Id. at 1519–20.

106. Letter from Daniel Oliver, Chairman of the Federal Trade Commission, to Congressman Thomas A. Luken, Chairman of the Subcommittee on Transportation and Hazardous Materials 3 (Aug. 3, 1989) [hereinafter Oliver Letter] (responding to criticism that the Commission had done an inadequate job of enforcing the antitrust laws with respect to mergers) (on file with Columbia Law Review).

107. *Laidlaw*, 636 F. Supp. at 1518–19.

costs, performance bond requirements, and experience requirements (often introduced into bid specifications at the request of incumbent service suppliers).[108] The district court did find a violation. With respect to supply substitution by the customer and absence of barriers to entry, the theories relied upon by the Commission in declining to act, the court pointed out that there was no indication that such substitution would occur in response to a 5% or even 10% price increase.[109]

5. Consolidated Gold Fields, PLC v. Anglo American Corp.[110] — The Minorco group, the world's largest noncommunist gold mining concern, with 20.37% of the market, launched a tender offer for Gold Fields, the second largest noncommunist gold mining concern, with 12% of the market. The Federal Trade Commission declined to challenge the merger on the grounds, among others, that communist countries' gold should have been included in the market.[111] With respect to the communist gold supply, the Commission Chairman wrote that "[c]ommunist countries have shown no reluctance to sell gold to Western countries at the right price."[112] The district court went further. It applied a 5% test, and found that sales of Eastern Bloc gold had not increased at all when the price of Western gold rose.[113]

6. United States v. Syufy Enterprises.[114] — Syufy entered the first-run movie market in Las Vegas by opening a six-screen theater in 1981. At that time, there were three other firms showing first-run films in Las Vegas—Mann, Plitt, and Cragin. A bidding war for films followed, with Syufy apparently doing well and its competitors doing poorly. In 1982, Syufy bought out Mann (three screens) and Plitt (three screens), and in 1984 it bought out Cragin (eleven screens).[115] At that point, Roberts, a second-run theater chain in Las Vegas, switched to first-run films and thereafter expanded to twenty-eight screens, five more than Syufy's

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108. Id. at 1520.

109. On that point the district court wrote:

> Obviously in any market—be it for school bus services or sealing wax—there is some price at which a consumer will decline to buy, and will, perhaps, attempt to supply his needs by self help. However, this does not mean that the customer's decision not to buy can then be considered "competition." Such a position would significantly erode, if not *de facto* repeal, the Clayton Act.

Id. at 1519.

In the letter to Congress defending its failure to challenge the transaction, the Chairman referred to the district court's approach as "narrow, outdated structural reasoning to exclude perfectly good competitors from a relevant market." Oliver Letter, supra note 106, at 3.

110. 698 F. Supp. 487 (S.D.N.Y. 1988), aff'd in part, rev'd in part sub nom. Consolidated Gold Fields, PLC v. Minorco, S.A., 871 F.2d 252 (2d Cir.), cert. dismissed, 110 S. Ct. 29 (1989).

111. Oliver Letter, supra note 106, at 3.

112. Id.

113. *Consolidated Gold Fields*, 698 F. Supp. at 500–01.

114. 903 F.2d 659 (9th Cir. 1990).

115. Id. at 662.

twenty-three.[116] Even after Roberts's expansion, Syufy still accounted for about 75% of box office receipts in Las Vegas, down from 93% before Roberts entered the market and expanded.[117] In 1987, Roberts was acquired by United Artists, a strong national movie chain.[118]

The Department of Justice challenged Syufy's acquisitions under section 7 of the Clayton Act and also as monopolization under section 2 of the Sherman Act. Arguably, Syufy acquired over 90% of the market through its series of acquisitions, although this was reduced to 75% at the time of suit. The Ninth Circuit concluded, however, that there was no violation of section 7 because the market switch and expansion by Roberts demonstrated that there were no significant barriers to entry.[119] Its elaboration of the point is instructive:

> Syufy does not operate a bank or similar enterprise where entry is limited by government regulation or licensing requirements. Nor is this the type of industry, like heavy manufacturing or mining, which requires onerous front-end investments that might deter competition from all but the heartiest and most financially secure investors. . . . Nor do we have here a business dependent on a scarce commodity, control over which might give the incumbent a substantial structural advantage. Nor is there a network of exclusive contracts or distribution arrangements designed to lock out potential competitors. To the contrary, the record discloses a rough-and-tumble industry, marked by easy market access, fluid relationships with distributor, an ample and continuous supply of product, and a healthy and growing demand.[120]

The Ninth Circuit's conclusion on the section 7 count is highly questionable.[121] Although Roberts properly can be included in the market, either on a supply substitution or new entrant theory, it had been stipulated between the parties that it " 'was not an *effective* competitor.' "[122] Thus, its entry was hardly an effective check on Syufy's market power. Even if it were, Syufy had still achieved a 75% market share, which far exceeds the Guidelines' or any case law's standard.[123]

The court's theory probably was that Roberts's entry demonstrated that if Syufy tried to lower film license fees or raise admission prices after its acquisitions, it would be swamped by new competition. But

116. Id. at 665.

117. Id. at 666.

118. Id. at 665.

119. Id. at 666–67.

120. Id.

121. On the section 2 monopolization charge, the government elected, for reasons not clear from the opinion, to emphasize market power in connection with the acquisition of licenses to exhibit films rather than downstream power with respect to admission fees. The Ninth Circuit understandably was perplexed as to how a single theater chain in a single city could extort onerous terms from giant Hollywood studios. Id. at 669.

122. Id. at 665 n.8.

123. The postmerger HHI after Roberts's entry would have been 6,250.

demonstration of that theory relies on the absence of several factors: licensing barriers, substantial front-end investments, any network of exclusive contracts, or dependence on a scarce commodity. There was no finding that Roberts's expansion was profitable or that others would enter promptly and challenge a now dominant and entrenched incumbent if there were significant price increases. One reason others might not have entered the market was that, after Roberts's expansion, the Las Vegas first-run film market may have been viewed as saturated.[124] Under the Ninth Circuit's definition of barriers to entry, it would appear that mergers up to monopoly power could take place in any retail market and many industrial markets,[125] because there are rarely legal or structural barriers to such entry and a finding of likelihood of entry apparently is not required under the *Syufy* court's approach.

D. *Evaluation of Recent Enforcement Decisions and Case Developments*

In each of the government enforcement decisions and cases discussed, the question of market definition was examined primarily in terms of hypothetical future possibilities, with "expert testimony" or speculation about competitive responses substituting for evidence about past events or even trumping actual past experiences. Other cases in the 1980s show a similar though less clear tendency.[126]

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124. A saturated market can be an entry barrier because new entrants may perceive that the entire investment is a "sunk cost"—a cost that cannot be recouped (except for salvage value) if they fail to compete successfully. See Hovenkamp, Antitrust Policy After Chicago, 84 Mich. L. Rev. 213, 265 (1985).

125. For example, the same absence of significant barriers to entry probably could be found in product lines such as supermarkets, discount stores, drug chains, appliance outlets, wholesale warehouses, and scores of others.

126. See, e.g., United States v. Country Lake Foods, Inc., 1990–92 Trade Cas. (CCH) ¶ 69,113 (D. Minn. 1990) (eleven-county area in Minnesota not a relevant market because distant fluid milk processors could ship into area, despite declarations from ten dairies that they would be unlikely to ship substantial volumes of fluid milk into area in response to small but significant increase in price); Frank Saltz & Sons v. Hart Schaffner & Marx, 1985–2 Trade Cas. (CCH) ¶ 66,768, at 63,719–21 (S.D.N.Y. 1985) ("better" suits for men is not separate market because if prices of expensive suits increased significantly, no evidence that customers would not switch; also, factories producing other categories of men's suits "are capable" of entry into better suit market); Carter Hawley Hale Stores v. The Limited, Inc., 587 F. Supp. 246, 252–53 (C.D. Cal. 1984) (moderately priced women's fashion apparel and special size women's apparel were not separate markets because suppliers could switch between product areas despite no evidence that switches had occurred in the past); In re Dairymen, Inc., 102 F.T.C. 1151, 1158 (1983) (barriers to entry "not high" because abandoned dairy processing plants "available" for purchase by new entrant despite no finding that plants were efficient or would be used if prices were to increase); see also United States v. Baker Hughes, Inc., 908 F.2d 981 (D.C. Cir. 1990) (ease of entry defeats government's prima facie case even in absence of a showing that such entry would be prompt or effective).

Some cases adhered to a more traditional approach in measuring barriers to entry. See, e.g., Hospital Corp. of Am. v. FTC, 807 F.2d 1381, 1387 (7th Cir. 1986) (Posner, J.) (rejecting arguments about new entry on grounds that entrants would require certificate of need and incumbents could resist issuance of such certificate by pointing to "excess

Perhaps several of these cases were rightly decided. Supply substitution possibilities were great and barriers to entry were low in the carburetor kit and plastic spray dispenser markets, and the results in those cases might have been justified on a more complete record. The absence of substantial switching or entry in the past may only mean products had been sold for some time at competitive prices, although there was no evidence in any of these cases that that was true. Arguably, the FTC decisions, *Echlin*, *Laidlaw*, and *Gold Fields*, may show no more than the unusual strength in the 1980s of the Commission's ideological opposition to aggressive merger enforcement.

Putting aside the results, however, all of these enforcement actions and cases reflect a troubling analytical approach to the issue of measuring market power. The problem can be illustrated by comparing the way these courts treated the issue of hypothetical future entry for purposes of defining relevant market with the way courts would address a comparable likelihood of entry issue in deciding whether a conglomerate merger may substantially lessen competition.

Conglomerate mergers can be illegal if the acquiring firm was an actual potential entrant that, but for the merger, might have entered the market independently or through a toe-hold acquisition of a small competitor.[127] Conglomerate mergers can also be illegal if the merger would eliminate existing procompetitive effects on the market that result from having a potential entrant "waiting in the wings."[128] Suppose, for example, that in the *Waste Management* market,[129] a Fort Worth trash hauler had acquired a competitor in Dallas. If the Fort Worth company were an "actual potential entrant" into the Dallas market, that might be grounds for concluding that the merger might lead to a substantial lessening of competition. To prove likelihood of entry in a conglomerate merger context, however, the challenging party would have to show that the acquiring firm had the capacity, interest, and economic incentive to enter the market.[130] Economic incentive in turn has

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capacity" brought about by possible cartel pricing policy that created the overcapacity to begin with), cert. denied, 481 U.S. 1038 (1987); FTC v. Bass Bros. Enters., 1984-1 Trade Cas. (CCH) ¶ 66,041, at 68,613 (N.D. Ohio 1984) (rejecting "no barriers to entry" defense, partly on grounds that entry had not occurred in recent past, partly because new environmental protection equipment created permanent cost disadvantage to challengers but not to incumbents); Monfort of Colo., Inc. v. Cargill, Inc., 591 F. Supp. 683, 707–08 (D. Colo. 1983) (finding barriers to entry because of high capital costs, length of time to build a plant, and unattractive prospects for profit), aff'd, 761 F.2d 570 (10th Cir. 1985), rev'd on other grounds, 479 U.S. 104 (1986).

127. See, e.g., United States v. Marine Bancorporation, 418 U.S. 602, 632–39 (1974); In re Bendix Corp., [1970–73 Transfer Binder] Trade Reg. Rep. (CCH) ¶ 19,288 (1970), rev'd on other grounds, Bendix Corp. v. FTC, 450 F.2d 534, 539–42 (6th Cir. 1971).

128. See, e.g., United States v. Falstaff Brewing Corp., 410 U.S. 526, 531–37 (1973).

129. See supra text accompanying notes 86–90.

130. See *Marine Bancorporation*, 418 U.S. at 624–25; Tenneco Inc. v. FTC, 689 F.2d

been defined as the likelihood that the acquiring firm could earn a profit after entry.[131] Finally, the alleged entry must be likely to occur in the near future.[132]

Market definition and conglomerate merger enforcement present different issues of antitrust enforcement. Nevertheless, the question of likelihood of entry—whether prompt entry would occur as opposed to whether there is any reason why it would not occur—is common to both inquiries.[133] But the proof that the Commission and some courts have not required in relevant market analyses has been consistently required before a plaintiff can win a conglomerate merger case. Indeed,

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346, 353–55 (2d Cir. 1982). Although Tenneco had demonstrated an interest in entry into the relevant market and had the financial capability of accomplishing that purpose, the court of appeals reversed a Commission finding that entry was likely:

> The record is devoid of evidentiary support for the Commission's assertion that in the period relevant to this case, when industry earnings were in decline, Tenneco would have been willing to suffer the "cost disadvantage" inherent in the building of an efficient scale plant that would remain underutilized "for a number of years." The Commission's conclusion that Tenneco would have entered the market *de novo* . . . absent [the present acquisition] . . . is based on the kind of unsupported speculation that the Supreme Court condemned when it warned that we should "remember that § 7 deals in 'probabilities,' not 'ephemeral possibilities.' "

Id. at 354 (citations omitted).

131. See, e.g., In re Brunswick Corp., 94 F.T.C. 1174, 1269 (1979), aff'd sub nom. Yamaha Motors Co. v. FTC, 657 F.2d 971 (8th Cir. 1981) (proof of "economic incentive" required), cert. denied, 456 U.S. 915 (1982); Mercantile Tex. Corp. v. Board of Governors of the Fed. Reserve Sys., 638 F.2d 1255, 1269 (5th Cir. 1981) (expressly applying standards under the Clayton Act to the Bank Holding Company Act); 2 P. Areeda & D. Turner, supra note 15, at 108–09, 117 (probable future entry should be based on findings of persistent substantial profits that are high relative to risks of business to be entered).

132. See BOC Int'l Ltd. v. FTC, 557 F.2d 24, 29 (2d Cir. 1977). The court reversed a Commission finding of a violation, stating:

> We hold that such uncabined speculation cannot be the basis of a finding that Section 7 has been violated. . . . While it is not clear—and we need not decide—whether the probable entry of the acquiring firm must be "imminent" in an actual potential entrant situation, it seems necessary under Section 7 that the finding of probable entry at least contain some reasonable temporal estimate related to the near future, with "near" defined in terms of the entry barriers and lead time necessary for entry in the particular industry, and that the finding be supported by substantial evidence in the record.

133. "Would enter" and "could enter" a market are shorthand expressions of radically different degrees of likelihood that a future event will occur. No party can be taxed with demonstrating with absolute certainty that entry would occur, but it can be asked to show a high degree of probability ("would" enter). A showing that entry "could" or "might" occur requires nothing more than demonstrating an absence of barriers and need not even address the question of whether entry is likely.

Because conglomerate mergers pose remote threats to competition, a court might justifiably demand some evidence showing likelihood of entry. A somewhat lesser standard might apply in connection with definition of relevant market. Nevertheless, the central question must be the same—what market participants are likely to do rather than speculation about what "might" or "could" occur.

in the conglomerate merger cases, *Tenneco Inc. v. FTC*[134] and *BOC International Ltd. v. FTC*,[135] the courts condemned what they described as "unsupported" and "uncabined" speculation concerning issues relating to economic incentives to enter a market, even though that very speculation about future entry has been a decisive element of proof of broader markets when definition of relevant market is at issue.[136]

The conglomerate merger cases, requiring reliable evidence of future entry, reflect the more sensible method of analysis. The fact that a firm has the capacity to enter a market does not mean it will enter promptly or at all. For most firms, investment opportunities abound and an expansion of capacity or new entry will depend at a minimum on the opportunity costs of that program. It will also depend on whether resources committed to entry can easily be extracted,[137] whether entry can be accomplished at an efficient level that would be a real challenge to a hypothetical cartel, and whether the profit opportunities will be long-lasting—including whether other new entrants are likely to enter the same market promptly, thereby reducing potential profits. Most recent relevant market definition cases and enforcement decisions have hardly touched upon these inquiries. This failure is all the more troublesome in view of the fact that in most of these cases—*Waste Management*, *Calmar*, *Echlin*, *Laidlaw*, and *Syufy*—market share and concentration ratios were unusually high, suggesting that easy entry and supply substitution defenses should have been credited only when evidence of inability to raise prices was relatively clear. In such circumstances, the ability of a defendant to "tell a story" about possible future entry should not be a defense.

One might argue that consumers invariably seek to avoid higher prices by purchasing low-price substitutes and new entrants invariably respond to profit opportunities. Therefore, a rule requiring a demonstration that consumers or new entrants did respond in the past or clearly would respond to future hypothetical price increases is unduly demanding and will lead to the appearance of substantial market power when none exists. In a similar vein, the Supreme Court suggested, in the heyday of conglomerate merger enforcement, that capacity and interest should demonstrate in themselves the likelihood of actual poten-

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134. 689 F.2d at 354–55.

135. 557 F.2d at 29.

136. At roughly the same time that the Federal Trade Commission was finding supply substitution and entry on the basis of hypothetical projections in measuring market power, it was concluding in an "actual potential entry" case that a "reasonable probability" of entry was not sufficient and that a challenger to a conglomerate merger must present "clear proof" that a firm would have entered the market but for the acquisition. In re B.A.T. Indus. Ltd., 104 F.T.C. 852, 925 (1984).

137. Even scholarship that is most generous regarding potential entry as a limit on prevailing prices in a market recognizes the importance of costless exit, see Baumol, Contestable Markets: An Uprising in the Theory of Industry Structure, 72 Am. Econ. Rev. 1, 3 (1982).

tial entry.[138] But the creation of unacceptable market power depends on the concept of time. Even if theoretical constructs were accurate predictors and market power created by a merger eventually would be dissipated by consumer shifts or new entry, market correction may take many years. Hypothetical notions about capacity to switch or substitute will rarely give much of an answer to how long the "long-term" will be.[139]

In sum, relevant market analyses in the 1980s, in part induced and invited by the Guidelines' emphasis on hypothetical future supply responses, have been inconsistent with antitrust approaches in other areas of merger enforcement and have become increasingly removed from a valid theoretical base.

III. A Proposed Formulation for Relevant Market Analysis

A. *Introduction*

The remainder of this Article is devoted to an effort to present an approach to relevant market definition that neither understates nor overstates market power. In the course of that discussion, some of the strengths and weaknesses of the Guidelines are discussed.

The proposed approach calls for a three-step process. Step one tracks the conventional judicial approach and examines elasticity of demand from presently available sources, relying on actual sales at existing prices. The central question is whether buyers perceive of other products as substitutes, as evidenced by whether prices and sales volume of the purported substitutes have reacted to each other in the past.

Step two is an adjustment that inquires into whether the seller or sellers of products in the market as defined under step one have the ability to discriminate against a significant group of consumers, and whether they earn a far higher than average rate of return. If the seller or sellers can engage effectively in price discrimination, narrower product markets than those resulting from step one may be justified. Evidence of unusually large profits will also have to be taken into account in determining whether the sellers have market power.

Step three involves a second level of adjustments. It examines whether, if the seller or sellers raise prices on what appears to be a relatively permanent basis, significant supplies of substitute products that are not presently available would flow into the market so that the

138. See FTC v. Procter & Gamble Co., 386 U.S. 568, 580–81 (1967) (factors cited to support theory of potential entry limited to "capacity" and "interest").

139. Horizontal merger guidelines published by the National Association of State Attorneys General (NAAG) recognize the point, and require that claims that supply responses will dissipate apparent market power be based on "hard evidence." NAAG Horizontal Merger Guidelines, 52 Antitrust & Trade Reg. Rep. (BNA) No. 1306 (Spec. Supp.) S-5, n.22 (1987). In general, the NAAG Guidelines have had virtually no impact on decisions in federal courts.

price rise would become unprofitable. The second-level adjustments address issues similar to those cited in the Guidelines: (1) the likely diversion by existing manufacturers of captive production, unused capacity, or recycled products; (2) geographic diversion; (3) supply substitutability; and (4) wholly new entry. Under this proposal, however, the recommended treatment of these issues often is different than under the Guidelines.

There are several major differences between this approach and the Guidelines. First, far more emphasis is placed on historical data developed under step one than on hypothetical claims developed under step three. Second, issues of profitability are included and emphasized. Third, the de facto 10% threshold is rejected as unduly generous. Fourth, the test under step three concerning new supplies is whether they would, rather than could, enter the market. Fifth, the possibility of product and geographic diversion under step three is treated as an adjustment rather than a redefinition of market, and adjustments will be considered that can lead either to an increase or a decrease in market power. Finally, a recommendation is offered with respect to an issue omitted in the Guidelines—the concept of cluster markets.

B. *Step One: Elasticity of Demand for Currently Available Products*

The initial step in relevant market analysis should be an inquiry into the elasticity of demand for currently available products at existing prices. Thus, assuming a seller or group of sellers tries to raise prices, is there reason to believe, on the basis of past experience, that buyers would switch to alternate sources of supply that are currently available to a sufficient extent to make the price increase unprofitable?

1. *Proof of Relevant Market.* — The principal reason why market definition is so difficult is that for every product available for each different location, different buyers or groups of buyers will react differently to price changes. The problem is not serious when identical products are involved because, assuming purchasers or potential competitors are informed and rational, most will switch to substitutes at approximately the same point. When the product or group of products for which market power is an issue are not identical or the products to which buyers may switch are not the same, relevant market definition turns on the aggregate of decisions of different classes of customers who have different attitudes toward the importance of price and product characteristics in deciding whether to substitute or not. Nevertheless, there are some relatively uncomplicated ways of determining the question of substitutability at prevailing prices.[140]

a. *Past Purchasing Patterns in Response to Actual Price Changes.* — The single most reliable line of evidence in relevant market definition is

140. The discussion in this section tracks the general approach in 2 P. Areeda & D. Turner, supra note 15, ¶¶ 519–21.

whether, in response to past price changes, buyers promptly shifted to other products, or competitors promptly adjusted sales efforts.[141] When evidence of this type is available, it should outweigh speculation based on theoretical constructs.

The critical questions here are "how much" and "how soon." Some buyers or sellers with eccentric needs or attitudes may have shifted promptly in response to a price increase, but that does not mean products or groups of products are in the same market. The focus must be on what a substantial number of buyers did, and substantiality can probably best be measured, as the Guidelines suggest, by asking whether there was enough of a shift to make that price change unprofitable.[142]

The percentage price change that calls forth changes in purchasing patterns, as well as the period of time examined, are crucial. A few years after the Guidelines were introduced, the Reagan administration, in a remarkable instance of nullification of its own guidelines, changed the hypothetical figure from 5% to 10%—a fact widely recognized by government attorneys and lawyers, but never reflected in a formal amendment to the Guidelines.[143] Two questions emerge: first, should the standards be the same across the board for all industries, and second, are 5% or 10% and one year the correct standards?

The first question is answered more easily. While the Guidelines are valuable in insisting on some threshold number to begin measuring market power, a 5% test for all market settings is seriously flawed. Two sets of examples explain why. Suppose an industry is depressed, with

141. A much discussed variation would look at current purchasing patterns based on present prices and ask whether buyers and sellers in that market historically have been insulated from competition. Thus, in the geographic market context, Elzinga and Hogarty have proposed a geographic market in which 75% or more of production is sold within a given area and, at the same time, less than 25% of consumption comes into the area from outside. See Elzinga & Hogarty, The Problem of Geographic Market Delineation in Antimerger Suits, 18 Antitrust Bull. 45, 73–76 (1973). They have since suggested a 90% threshold. Elzinga & Hogarty, The Problem of Geographic Market Delineation Revisited: The Case of Coal, 23 Antitrust Bull. 1, 2 (1978). As many have noted, this test is static in the sense that it does not describe what customers or sellers would do in the event of a price increase—i.e., it does not answer fully the question whether current purchasing patterns occur because prices are competitive, or would disappear in the event of an attempt to exercise market power. See ABA Antitrust Section, supra note 36, at 99–101 and authorities cited therein. While the Elzinga and Hogarty test is a first step in market measurement, and reflects the sensible concern about using historical rather than hypothetical future data, it must be corroborated by further analysis in order to be reliable.

142. See1982 Merger Guidelines, supra note 6, § II(A); 1984 Merger Guidelines, supra note 6, § 2.11.

143. See supra note 57 and accompanying text. Current enforcement policy, although probably more stringent with respect to mergers, still describes a "small but significant, non-transitory price increase" as generally in the range of "five to ten percent." J. Whalley, After the Herfindahls are Counted; Assessment of Entry and Efficiencies in Merger Enforcement by the Department of Justice 7 (P.L.I. Dec. 1, 1989).

all firms selling their products at radically discounted prices, and then a merger takes place. In that situation, a 5% price increase over prevailing prices following the merger might cause no switches to substitute products and will trigger no entry because the product was already selling at bargain prices. Other firms will not sell in that market if there are little or no profits to be made. Hence the original firms in the market may incorrectly be perceived as having market power precisely because they were selling before the merger at prices close to or below marginal cost. By contrast, suppose a group of sellers is already extracting a monopoly price and, following a merger, that price is increased 5%. That might lead to many shifts by buyers to substitute products, or to sellers located in adjacent areas, or might trigger additional entry. Thus, there would be the absurd result of minimizing the appearance of market power because the firms in the industry have already exercised that power.

Second, the significance of any percentage increase will vary depending upon profit margins in the industry. In an industry with narrow profit margins such as food retailing, a profitable price increase by incumbents of less than 5% could indicate great market power. On the other hand, in a high risk industry such as oil drilling, a 5% increase would indicate little about market power even if buyers did not switch to substitute products. Thus, any percentage test must be applied flexibly, taking the nature of competition in the market into account.

The one-year time horizon should also be used flexibly. Its accuracy as a predictor of market power depends on how promptly potential new entrants learn about higher prices in a market, the presence of long-term contracts or other economic arrangements that would make it expensive to shift to new suppliers, the costs involved in switching to new markets, and potential entrants' and buyers' perceptions as to whether the higher price levels are permanent.

To the credit of the Guidelines' drafters, they apparently recognized the infirmities of a single measuring standard. In the amended Guidelines published in 1984, the Department of Justice again started with the 5%, one-year test, but qualified the test by noting that "what constitutes a 'small but significant and nontransitory' increase in price will depend on the nature of the industry, and the Department *at times* may use a price increase that is larger or smaller than 5 percent."[144] It would be useful for the Guidelines' drafters to clarify at some point what factors will determine whether a larger or smaller percentage figure should be used. Nevertheless, the determination to adopt a flexible approach is an improvement.

The difficult and more important question is the magnitude of the hypothetical price increase that will be relied upon to determine market power. The magnitude selected is significant because mergers that lead

144. 1984 Merger Guidelines, supra note 6, § 2.11 (emphasis added).

to an increase of less than 5% (or less than 10%) probably would go unchallenged—i.e., firms that might raise prices less than that percentage would not be regarded as "in a market."[145]

Why 5% or 10%? One explanation could be that price increases up to those levels are tolerable, either because firms would not bother to enter into cartels for such modest increases in price, or, if they did, it would not be worth the commitment of government resources to thwart those efforts.[146]

An alternative explanation has been put forward by Bush administration officials who suggest that 5% or 10% is not a "tolerance level," but rather a yardstick to measure market power.[147] Once a proper market has been defined, the possibility of actual price increases of less than 5% may trigger a government challenge. The new interpretation is useful in recognizing that increases of less than 5% that are likely to result from mergers may justify Government action. This approach shows a more flexible attitude toward the market definition question, but may also miss the significance of the 5% test in governing merger enforcement. Suppose after a merger, the remaining firms raise prices 5% and an avalanche of substitute products become competitive. The abrupt appearance of substitute competition at a given price level will usually occur when the substitute products are homogeneous, but may also occur when some heterogeneity is present. In that situation, the market will be defined broadly to include the substitute products, market shares and concentration ratios will be affected, and the merger itself may fall into a "safe harbor" and appear innocuous. If a price increase of 3% or 4% would not bring in substitute products, thus signalling the presence of some market power, a merger leading to such price increases would nevertheless go unchallenged because, under a 5% test, market effects of that magnitude would not be detected.

The new approach acknowledges this problem by noting that the Government will challenge mergers based on a less-than-5% test if it

145. Since market power is evidenced by the ability of a firm or group of firms to raise prices and thereby substantially increase profit, commentators have argued that the threshold level should be expressed in terms of minimum profit changes as opposed to minimum price changes. See Harris & Jorde, Market Definition in the Merger Guidelines: Implications for Antitrust Enforcement, 71 Calif. L. Rev. 464, 482 (1983); Harris & Simons, Focusing Market Definition: How Much Substitution is Necessary?, 12 Res. L. & Econ. 207, 211–20 (1989); Werden, Market Delineation and the Justice Department's Merger Guidelines, 1983 Duke L.J. 514, 542–45. The point is well taken, but since prices can be ascertained with a reasonable degree of certainty and profits cannot, and profit increases generally will occur in proportion to price increases, the Guidelines adopt the practical course of focusing on price changes. In the exceptional case in which the proportional relationship is not likely, an adjustment would need to be made.

146. See P. Areeda & H. Hovenkamp, supra note 31, ¶ 518.26.

147. 60 Minutes with the Honorable James F. Rill, Assistant Attorney General, Antitrust Division, U.S. Department of Justice, 59 Antitrust L.J. 45, 48 (1990) (remarks of James F. Rill Before the 38th Annual Antitrust Spring Meeting of the Section of Antitrust Law (Mar. 23, 1990)).

has information showing that there is "lumpiness or gaps" in the chain of substitution.[148] It would be extraordinary, however, for the Government to have information so precise that it would know that a price increase of 3% or 4% would be profitable, but a 5% or 6% increase would produce a surge of substitution. More likely, the 5% test would continue to determine under what circumstances the Government would sue, leaving hypothetical price increases of less than 5% unchallenged.

Assuming that price increases below the "threshold" or "yardstick" level will continue to go unchallenged, the question remains as to what the appropriate standard ought to be. The selection of any standard in this context is arbitrary and partly reflects a political choice. Nevertheless, it does appear that 5% (and certainly 10%), adopted during the Reagan years, is generous. Since costs are unlikely to increase significantly as a result of a cartel, a price increase should directly increase profits. Take an industry in which pretax profits are 8% of net sales, a realistic level for most industries.[149] A 4% price increase should lead to a pretax profit increase of 50% and an 8% price increase often will lead to a doubling of pretax profit.[150] The belief that cartels

148. Id. at 49.

149. After tax profits per dollar of sales for United States corporations from 1980 through the third quarter of 1988 are indicated below. If we assume payment of maximum corporate taxes, these figures are adjusted upward in the parenthetical figures by 50% to show pretax profits.

1980	=	4.8%	(7.2%)
1981	=	4.7%	(7.15%)
1982	=	3.5%	(5.25%)
1983	=	4.1%	(6.15%)
1984	=	4.6%	(6.9%)
1985	=	3.8%	(5.4%)
1986-1	=	3.6%	(5.4%)
1986-2	=	4.7%	(7.05%)
1986-3	=	3.4%	(5.1%)
1986-4	=	3.3%	(4.95%)
1987-1	=	4.4%	(6.6%)
1987-2	=	5.3%	(7.95%)
1987-3	=	5.6%	(8.4%)
1987-4	=	4.2%	(6.3%)
1988-1	=	6.0%	(9.0%)
1988-2	=	6.3%	(9.45%)
1988-3	=	5.9%	(8.55%)

The result is that for all manufacturing corporations, pretax profits as a percentage of total sales were between 5% and 10% during the period 1980 to 1988. In general, nondurable goods industries showed higher profit-to-sales ratios than durable goods industries. Nevertheless, it was only in 1988 that even nondurable goods industries showed pretax profits of approximately 10%. Council of Economic Advisors, 1989 Annual Report, Tables B-90, 91 (1989) (printed with Economic Report of the President, at 412–13).

150. Usually there will be lost sales and consequently lost profits as a result of the price increase, and the magnitude will vary from case to case. The important point here,

leading to a 50% to 100% increase in pretax profit are not worth the time and effort of sellers, and therefore not worthy of the attention of the enforcement agencies, is a remarkable political choice.

Recognizing that some baseline figure is useful to screen de minimis competitive effects, and that any percentage figure is arbitrary, a sounder approach might have been to set 5% as the presumptive maximum figure, with lower percentages triggering a finding of market power in industries for which profit margins are narrower than average.

b. *Parallel Price Movements.* — A second relatively straightforward line of inquiry is whether over time the price movements of a group of products correlate with price movements of other products that are arguably in the same relevant product or geographic market. The test is effective when the data show price movements that do not correlate. Suppose the price of a cluster of products has increased 5% per year for each of the last five years, while another set of products, arguably in the same relevant market, has remained the same or declined slightly during the same period. The chance of the two sets of products being in the same relevant product market is negligible.

The harder question is whether data showing positive price correlations over time should be deemed to show that the products are in the same market. There are several problems with that approach. With most heterogeneous products, the preliminary task of determining what constitutes price, in the presence of constantly changing discounts of various kinds, will often be difficult and the results unreliable. Also, price moves of entirely distinct products may appear coordinated because both groups of products are responding to the same set of economic pressures such as currency exchange rates, labor rates, or cost of raw materials. Sophisticated regression analysis could perhaps adjust for some of these factors,[151] but reliable conclusions may be hard to reach. Still, strong price correlations between products that are superficially substitutable should constitute an indicator that the products are in the same market—so long as this is verified through additional analysis. While difficult to handle, the data have the considerable virtue of reflecting actual transactions that have occurred in the market.

c. *Buyer and Seller Perceptions.* — Occasionally, the past behavior of buyers and sellers can generate objective evidence of cross-elasticity of demand among different products or groups of products. For example, when two groups of sellers of the same product advertise or engage in other significant marketing efforts in the same geographic area, that is strong evidence that each is part of a single geographic market. When buyers take actions to ensure the availability of price data from two different sets of sellers of similar products, that is evidence that both

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however, is even if there are few or no lost sales, and therefore little or no lost profits, the Guidelines would not be concerned with the transaction as long as the price increase is less than 5% or 10%.

151. See Stigler & Sherwin, supra note 7, at 572–73.

groups of products are in the same relevant product market. Similarly, on the supply side, actual marketing efforts by sellers to keep tabs on different markets in order to be prepared to shift production is another form of persuasive evidence.

d. *Limitations on Weight of Historical Evidence.* — Unfortunately, none of the types of evidence described above definitively establish substantial cross-elasticity among products. For example, actual sales patterns may have shifted in the past for reasons that are idiosyncratic, and would not be repeated again. Price moves of entirely distinct products may appear coordinated because both groups of products are responding to the same set of economic pressures. Indeed, if the pressures are relatively strong—recent changes in currency exchange rates is one example—these factors may overwhelm other economic indices, making it appear that a vast array of products are in the same market. Finally, sellers may keep tabs on or actually invade adjacent markets in order to complete a few marginal sales, but may not have the capacity or other resources to become a substantial supplier over time and hence could not render a price rise unprofitable.

Nevertheless, these qualifications result from uncommon situations. Usually, products that show substantial sales shifts in response to actual price changes, that demonstrate over time coordinated price patterns, and that are regarded by buyers and sellers as competing are almost certain to be in the same relevant market. As long as the parties and the trier of fact keep in mind that relevant market definition can never be more than an approximation of market power, and that the parties have an opportunity to demonstrate that historical evidence may for special reasons be misleading, the approach advocated here—subject to the adjustments to be discussed under step two and step three—avoids the more egregious errors of past relevant product market definitions.

2. *Questions of Evidence.* — Under the preceding approach, relevant market definition is channeled toward lines of evidence based on historical behavior. The Guidelines can be interpreted as emphasizing future price responses, and many cases and enforcement decisions in the 1980s gave priority over past behavior to these hypothetical future market reactions.[152] In effect, the Guidelines ask a series of questions about possible future behavior that has never occurred. But are the answers to the Guidelines' questions knowable within the limits of the judicial process? Different purchasers and classes of purchasers will attach different values per unit to competing products. Some will pay no more than prevailing prices and will switch promptly to substitutes, some will pay two or three times the prevailing price, and others will switch partially to substitutes at different price levels.

Beyond the sheer complexity of these questions, there is the matter

152. See supra notes 86–125 and accompanying text.

of the quality of the evidence. The issue of future price moves and future reactions to price moves usually will be examined through the testimony of economic experts and the testimony of interested witnesses such as executives of the defendant, suppliers, customers, or the defendant's competitors. The chance that any company will have taken the business steps to prepare for future price moves by competitors—for example, constructing capacity to go on line in the event of more favorable market conditions—is remote. The chance that there are reliable studies or documents indicating what companies would do in the future in response to significant price changes is even more unlikely. Given the utter uncertainty of hypothetical shifts in the future, a witness can testify in support of almost any conclusion without fear of effective contradiction.

The Guidelines, reflecting their theoretical outlook, pay inadequate attention to the quality of proof question and therefore invite a relevant market approach that is often unreliable.[153] Reflecting the Guidelines approach, recent cases increasingly seem willing to rely on this sort of speculative evidence.[154]

This is not to say that future hypothetical price reactions should be ignored. First, there will be some situations in which reliable evidence of future pricing is available. Second, many adjustments to market definition examined under step three below are unavoidably based on possible future reactions to price changes. Sensible examination of those questions, however, requires that the unreliability of such evidence be emphasized.

3. *Redefinition or Adjustment.* — When the market definition question involves presently available supplies that can defeat a price increase, the technique of the Guidelines is to ask whether, as a result of the increase, so many buyers would shift in the aggregate to substitute products as to make the price increase unprofitable.[155] If so, the firm or firms producing the "next-best substitute" will be added to the market and the test will be run again until a market is found for which a profitable price increase could be introduced.[156]

Inclusion in the market of the entire production of the firm or firms offering a substitute product may not portray accurately the competitive situation. The clearest example would be one in which 75% of the production of a firm is committed by long-term contract to customers

153. Similar criticism is offered in Harris & Jorde, supra note 145, at 494; Stigler & Sherwin, supra note 7, at 582. The NAAG Merger Guidelines avoid the error, see supra note 139.

154. See supra notes 86–125 and accompanying text.

155. See supra notes 46 & 50 and accompanying text.

156. 1982 Merger Guidelines, supra note 6, § II(A); 1984 Merger Guidelines, supra note 6, § 2.11 Although the Guidelines never say so, presumably the aggregate of substitutes that could defeat a price rise would include both production substitutes and products diverted from other geographic areas.

outside the geographic market. Even if the 25% that can be diverted to the market is adequate, along with other substitutes, to defeat the price increase, it remains questionable whether 100% of the firm's production should be included in the market. The problem arises in other contexts as well. For example, suppose because of quality differences, 75% of a firm's production is not an acceptable substitute to buyers in the market. It is also possible that the profits earned by the "outside firm" on 75% of current sales to current customers is greater than the profits it could earn by shifting to customers of firms in the market because the shift would involve some investment in new distribution facilities.[157]

The Guidelines strike something of a compromise on these issues. If a firm's production is "committed elsewhere" so that it would not be available to switch to customers in the hypothetical market, the Guidelines would count only a portion of that firm's production.[158] But if it is not so committed, then the firm's entire production is counted in the market, regardless of whether customers would regard the entire production as an adequate substitute or whether the firm would find that the market offers profitable opportunities. The question of inclusion of all or part of presently available production is important and perplexing, and several prominent scholars have advocated different positions.[159]

An adjustment approach offers the advantage of portraying more accurately the market and avoiding the "all-or-nothing" type of inclusion or exclusion that has been one of the great problems in relevant market definition. Nevertheless, there are several practical reasons why, on balance, redefinition is usually the sensible approach when presently available production is the issue. Because the test for inclu-

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157. These points were illustrated in the *Cellophane* decision, United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377 (1956); see supra notes 24–31 and accompanying text (discussing this decision). Because significant numbers of buyers would switch to saran wrap, wax paper, and other flexible packaging materials if the price of cellophane were increased, the Court counted all substitute production as part of the relevant product market. It did not pause to examine the possibility that some grades of saran wrap or wax paper would have been unacceptable for present purchasers of cellophane, or that manufacturers of the substitute products would not have been willing to make investments necessary to serve a new category of customers.

158. 1982 Merger Guidelines, supra note 6, § II(D); 1984 Merger Guidelines, supra note 6, § 2.4.

159. Compare P. Areeda & H. Hovenkamp, supra note 31, ¶ 520'b; 2 P. Areeda & D. Turner, supra note 15, ¶ 523b; Landes & Posner, supra note 7, at 963–69 (all advocating redefinition, i.e., inclusion of firm's entire production) with Harris & Jorde, supra note 145, at 480–81 (advocating adjustment, i.e., inclusion of only the amount that would be diverted). See generally Brennan, Mistaken Elasticities and Misleading Rules, 95 Harv. L. Rev. 1849 (1982) (criticizing Landes and Posner analysis); Kaplow, The Accuracy of Traditional Market Power Analysis and a Direct Adjustment Alternative, 95 Harv. L. Rev. 1817, 1827–32 (1982) (advocating adjustment approach though not necessarily in context of merger enforcement).

sion is whether substitute production can *defeat* a price increase of a specified amount, it is not crucial whether 25% or 100% of a firm's production is included "in the market." In either situation, the presence of substitute production that can defeat a price increase demonstrates the absence of market power of the firm or firms trying to raise prices. Moreover, it is difficult enough to ascertain whether a firm or product is in a market; it would be far more difficult to determine what percentage of its production customers would find adequate as a substitute or the firm would find profitable to sell in that market. This measurement problem does not arise when the firm's production is committed elsewhere by contract, and therefore justifies the Guidelines' exception for that specific situation. Finally, because the result of the exercise is to bring into the product or geographic market the "next-best substitute," it is unlikely that customers of the hypothetical cartel would find only a small portion of the production of the next-best substitute to constitute an acceptable alternative source of supply.

While there is no perfect answer to the redefinition/adjustment question, the Guidelines' approach to presently available production, adopting market redefinition except when a firm's production is committed elsewhere by contract or otherwise, makes sense. Few instances of substantial market power will be overlooked by this approach, and the administrative advantage is considerable.

C. *Step Two: First-Level Adjustments and the Problems of Profit and Price Discrimination*

After a tentative relevant market has been defined, based primarily on past evidence of elasticity of demand, there still remains a need for a series of adjustments to reach an accurate estimate of market power. A first level of these adjustments requires that two collateral matters be addressed: (1) profit levels and the related issue of the "*Cellophane* fallacy," and (2) the ability of firms within the tentative market to discriminate. The Guidelines and virtually all cases ignore the first issue; the Guidelines and some cases recognize and take account of the second.

The issues of profits and the ability to discriminate share a number of common characteristics. An examination of each issue is essential to a fair appraisal of market power. The issues involve subjects that are difficult to measure, however, and neither issue is likely to be a problem in most market definition contexts. The approach suggested here is that each issue be examined briefly[160] and then, in most cases, dismissed as irrelevant. In those rare cases in which either issue is a seri-

160. The notion of a "quick look" approach to certain preliminary issues has increasingly been used in the antitrust field in recent years. See Northwest Wholesale Stationers v. Pacific Stationers & Printing Co., 472 U.S. 284 (1985); NCAA v. Board of Regents of Univ. of Okla., 468 U.S. 85 (1984).

ous factor, the tentative markets established under step one need adjustment.

1. *Profit Levels and the* Cellophane *Fallacy*. — The Guidelines' approach parallels the Supreme Court's relevant market test in the *Cellophane* case,[161] in which the Court observed that du Pont could not raise the price of cellophane without losing substantial market share to other flexible wrapping materials and concluded therefore that cellophane was not a separate relevant product market. As noted earlier, however, the test in *Cellophane* has an important technical error. It is possible that the seller or sellers of the product in question are already charging a higher than competitive price and it is for that reason that substitute competition is effective in preventing further price increases.[162]

The courts have consistently failed to recognize this problem. For example, in a series of private cases brought against International Business Machines Corporation in the 1970s, the courts regularly concluded that IBM shared product markets with other mainframe and peripheral manufacturers even though IBM's profits, measured by virtually any standard, were far in excess of competitors or of American industry generally.[163] While IBM probably could not raise its prices any further without losing substantial business to its competitors, that hardly meant that it lacked market power. It clearly could have lowered its prices, driven competitors out of business, and still made a healthy profit[164]—another way of looking at the question of market power.

The Guidelines also ignore the *Cellophane* fallacy, opting to measure market power by applying the 5% test to "prevailing prices."[165] The predictable result is a consistent expansion of the size of markets and consequent underassessment of market power. Although there are two possible reasons for incorporating the *Cellophane* fallacy in the Guidelines—one ideological and the second administrative convenience—neither is an adequate justification.

a. *Antitrust Policy and the Guidelines*. — It has been argued that section 7 of the Clayton Act should be concerned exclusively with whether a merger may lessen competition.[166] If a market is already performing

161. United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377 (1956); see also supra notes 24–31 and accompanying text (discussing the *Cellophane* decision).

162. See supra note 31 and accompanying text.

163. E.g., Transamerica Computer Co. v. IBM, 481 F. Supp. 965, 981 (N.D. Cal. 1979), aff'd, 698 F.2d 1377 (9th Cir.), cert. denied, 464 U.S. 955 (1983); Telex Corp. v. IBM, 367 F. Supp. 258, 285 (N.D. Okla. 1973), rev'd per curiam, 510 F.2d 894 (10th Cir.), cert. dismissed, 423 U.S. 802 (1975); see H. Hovenkamp, Economics and Federal Antitrust Law 64 (1985).

164. See Telex Corp. v. IBM, 367 F. Supp. at 306 (after cutting price below competitors' prices, IBM still earned over 20% pretax profit).

165. 1982 Guidelines, supra note 6, § II(A); 1984 Guidelines, supra note 6, § 2.11.

166. See R. Posner, supra note 7, at 122–23; Baxter, Responding to the Reaction: The Draftsman's View, 71 Calif. L. Rev. 618, 623 n.35 (1983).

in a less than competitive way, as demonstrated by high prevailing prices, and the merger does not make the situation worse, section 7 may not be violated. Thus, it has been argued, use of prevailing prices to measure market power is appropriate.

The argument is weak for several reasons. First, even assuming a market is cartelized already, or for some other reason is performing in a noncompetitive way, a merger among its members further lessens competition. If the cartel is explicit, the merger reduces the feasibility (and hence the likelihood) of "cheating," which is a significant factor tending to undermine cartels.[167] If the cartel is tacit, the reduction in the number of participants stabilizes the arrangement.[168] Second, aside from direct cartel behavior, sellers or buyers in a highly concentrated market (with one fewer participant as a result of a merger) are likely to be able to coordinate more effective strategic behavior to exclude rivals. For example, they can lower prices to thwart potential new entries or buy up scarce resources in a coordinated way. The market situation is less competitive because the possibility of the incumbents' being challenged successfully has diminished.[169] Finally, an interpretation of section 7 that ignores the *Cellophane* fallacy would lead to absurd results. For example, in 1960, electrical equipment manufacturers pleaded guilty to criminal charges of price fixing in twenty separate product lines of heavy electrical equipment.[170] It was the most notorious example of a cartel in the history of antitrust enforcement. According to the Guidelines' interpretation of section 7,[171] General Electric and Westinghouse could have merged in 1960, though their combined market shares and concentration in particular product lines were extremely high, by defending on grounds that there was already a totally effective cartel in those fields and the merger made things no worse. Such an interpretation of section 7 is obviously inconsistent with the aims of Congress when it passed the statute.

b. *Alternatives to "Prevailing Price"*. — A more formidable defense of the use of "prevailing price" in measuring market power is that alternative formulations are not feasible. For example, a comparison of price to marginal cost, demonstrating the magnitude of the price/cost margin, is the most accurate indicator of market power. However, since marginal cost is unknown to most firms, and is probably unknowable, this is not a feasible alternative.

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167. McGee, Ocean Freight Rate Conferences and the American Merchant Marine, 27 U. Chi. L. Rev. 191, 200–01 (1960).

168. The premise of the Guidelines is that where only a few firms account for a large share of a market, they can, in some circumstances, more effectively engage in explicit or tacit collusion. See 1982 Guidelines, supra note 6, § I.

169. See Krattenmaker & Salop, Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power Over Price, 96 Yale L.J. 209, 260–61 (1986).

170. The conspiracies are described in In re State of California, 195 F. Supp. 37 (E.D. Pa. 1961).

171. The Guidelines look only to "prevailing prices." See supra note 165.

A more manageable approach would be to measure "profit," but the problem there is that accounting profit, which is a common measure in financial affairs, is not necessarily the same as economic profit.[172] For example, a firm in an expanding market may invest heavily in research and development or plant expansion and thereby show little accounting profit, despite its considerable market power. By contrast, a firm in a declining industry or with a declining product may "milk" the product by investing little in new facilities or marketing; it would show considerable "profit" but arguably would have little market power.[173] Also, most relevant market measurement questions in antitrust are framed in terms of products rather than firms, and the way in which a firm allocates joint expenses between products often will influence the appearance of profit.

But these problems can be exaggerated. Most product areas are not expanding radically or contracting; if they are, the appearance of higher or lower profits can be explained by the defendant. It is interesting that the Guidelines themselves regard profitability as a relevant factor (and hence knowable), but only as a tie-breaker if the merger falls in a moderately concentrated zone,[174] and not as a factor in defining relevant market.

The issue is not measuring profit, which concededly would be a difficult undertaking, but rather determining whether profits over a long period of time are exceptionally high compared to similar product lines or industries. When relatively high profit levels exist, the market definition process can be abandoned entirely and market power inferred directly from profitability.[175] Alternatively, tentative market shares can be adjusted upward to reflect market power by removing from the market all rivals with costs so high (and profits so low) that they do not constitute effective competition. The goal is to detect situations like du Pont's sale of cellophane or IBM's sale of computer products, when apparent cross-elasticity of supply masked extreme instances of market power. For such a limited purpose, accounting profit—compared to United States businesses' profits generally or to industries that in a rough sense show comparable levels of risk—is a reasonably reliable indicator of market power.

172. See 2 P. Areeda & D. Turner, supra note 15, ¶¶ 508–509.

173. See, e.g., E.I. du Pont de Nemours & Co. v. FTC, 729 F.2d 128, 131 (2d Cir. 1984).

174. 1982 Merger Guidelines, supra note 6, §§ III(C)(4)(c); 1984 Merger Guidelines, supra note 6, §§ 3.4, 3.45(c).

175. Some might quarrel with this approach, arguing that high profits reflect efficiency and that this interpretation penalizes efficient firms. But that argument confuses the measurement of market power with the substantive violation. All that high profits show is that there is market power. Sensible antitrust policy could then provide that if that power derives solely from efficiency, no violation has occurred. Cf. United States v. Aluminum Co. of Am., 148 F.2d 416, 430 (2d Cir. 1945) (providing for "skill, energy, and initiative" defense to alleged monopolization under section 2 of Sherman Act).

2. *Ability of Firms to Discriminate.* — Ability to discriminate is a less controversial issue in relevant market analysis. The Guidelines[176] and the case law[177] recognize that if a seller or group of sellers can earn substantially different returns from the sale of the same products to different classes of customers, those "captive customers" who cannot or will not switch to other sources of supply may constitute a separate and narrower relevant market.[178] If prices to that group, limited by their need for particular product characteristics or by geographic area to which they can turn, can be raised profitably by 5% or more, the seller or group of sellers could exercise market power.[179]

Ability to discriminate can arise in a variety of ways. The product may have some special features that are essential to the purchaser: glass containers for baby food, particular kinds of plastics for car interiors, or cellophane for the wrapping of cigarettes. If the merger involves a service (for which arbitrage usually is not possible), discrimination will often be feasible as the seller varies the price according to what the traffic will bear. Even when products or services are identical, a firm's reputation—and the desire of some purchasers to take the most risk-averse course—may cause some customers to pay the higher price and not switch. Finally, price discrimination can be systematic, as in basing point freight systems when nearby customers are regularly discriminated against compared to remote purchasers.[180] In each of these situations, the question that will be addressed is whether the price can be raised substantially and profitably to a particular class of customers.

Discrimination often can be defeated by "arbitrage"—i.e., the class of customers receiving the favorable price can enter the business of selling at a premium to the class of customers that is disfavored.[181] But examination of arbitrage possibilities should move beyond theoretical analysis to questions about what is really feasible. To be effective in the arbitrage business, the customers must know the identity of the other customers who are being discriminated against, undertake the expenses

176. 1982 Merger Guidelines, supra note 6, § II(A); 1984 Merger Guidelines, supra note 6, § 2.13.

177. See, e.g., United States v. Grinnell Corp., 384 U.S. 563, 571–76 (1966); FTC v. Owens-Illinois, Inc., 681 F. Supp. 27, 48 (D.D.C.), vacated as moot, 850 F.2d 694 (D.C. Cir. 1988).

178. While the Guidelines do not say so, presumably the group discriminated against would have to be substantial to justify an additional, separate market.

179. There is a related "*Cellophane* fallacy" problem. Apparently, the Guidelines' position would be that if sellers are already successfully discriminating against a class of buyers, market definition would not be affected unless the merger allowed the firms to discriminate even more profitably. For reasons already discussed, that is not a sound position. See supra note 31 and accompanying text.

180. See, e.g., FTC v. Cement Inst., 333 U.S. 683, 696–700 (1948); Triangle Conduit & Cable Co. v. FTC, 168 F.2d 175, 176 (7th Cir. 1948), aff'd sub nom. Clayton Mark & Co. v. FTC, 336 U.S. 956 (1949) (equally divided court).

181. See R. Posner, Economic Analysis of Law 109 (1973).

of buying, storing, reselling, and reshipping the product, and do so at a scale that would make an impact on the discriminating sellers. Finally, the arbitrageurs must be willing to go into this new business at whatever investment level is required, knowing that they could be frustrated completely in their initiative if the seller abandons its discriminatory scheme.

While ability to discriminate is difficult to prove, it is not impossible to do so. As with profitability, economists have developed regression analysis techniques that appear to make it possible to demonstrate economic cost more readily. Moreover, demonstrating that a profitable 5% price increase is possible to a class of customers, using the various tests described in step one, often will be no more difficult than demonstrating that fact with respect to customers generally.[182]

D. *Step Three: Second-Level Adjustments.*

Even if a preliminary analysis of elasticity of demand shows that a firm or group of firms holds a substantial market share, and that appearance of market power does not need to be adjusted to take into account profitability or ability to discriminate, it does not follow that the firm or firms holding that market share has market power. It may be that there are substitutes that do not compete effectively at prevailing prices, but would promptly make the price increase unprofitable if the seller attempted to exercise market power.

Four examples of these kinds of "adjustments" are touched upon at various points in the Guidelines and are discussed below. These are: (1) capacity in existence (including captive production, excess capacity of existing firms, and recycled products); (2) products currently sold outside the market that could be diverted ("geographic diversion"); (3) processes turning out currently noncompetitive products that could be adjusted ("supply substitution"); and (4) new entry either in the form of expanded capacity or grassroots entry.

Prior to 1980, many courts paid little attention to the possibility of

182. Except for the provision calling for "additional narrower" markets when price discrimination is feasible, see 1982 Guidelines, supra note 6, § II(A); 1984 Guidelines, supra note 6, § 2.33, the Guidelines avoid all reference to the concept of submarkets. As noted earlier, the submarket concept—defined by reference to a factor list in Brown Shoe Co. v. United States, 370 U.S. 294 (1962)—never had any theoretical justification, see supra notes 34–36 and accompanying text, and created much confusion in the law. See P. Areeda & H. Hovenkamp, supra note 31, ¶ 518.1a–f. The submarket approach also was abused in the sense that it often led to the defining of small, gerrymandered product and geographic categories in which market power was made to appear substantial. See Maisel, Submarkets in Merger and Monopolization Cases, 72 Geo. L.J. 39, 49–51 (1983); supra note 9. By tying the concept of "additional markets" to discrimination, the Guidelines sensibly curtail the misuse of the *Brown Shoe* list of factors and the overuse of the submarket concept.

these second-level adjustments.[183] Perhaps the most important contribution of the Guidelines has been to underscore the importance of these adjustments and develop a methodology whereby they can be measured. As so frequently happens with the Guidelines, however, many close questions relating to application of these "adjustments" have been decided in a manner that diminishes the appearance of market power.

1. *Capacity in Existence.* — Under the Guidelines, three types of capacity in existence may diminish apparent market power, tentatively defined on the basis of elasticity of demand at prevailing prices: (1) captive production and consumption; (2) existing excess capacity; and (3) recycled products.[184] While these substitutes may not provide effective competition at current prices, they often will become good substitutes if a hypothetical postmerger cartel increases prices. In each instance, the Guidelines' approach is to include in the market the firm that accounts for the substitute capacity,[185] and then to discount the size of the market by counting only those sales likely to be made or capacity likely to be used in response to a price increase.[186]

In theory, the Guidelines' approach is sound. Substitute capacity in existence is a more certain source of supply in the event of a postmerger price increase than an entirely new entry, and these substitute sources usually can be initiated or diverted to a market in a time period that can be reliably determined. The key questions, implicit but not squarely addressed in the Guidelines, are what sort of evidence (circumstantial evidence based on past events or predictions based on theory) determines whether sales are likely to be made, and whether that test will be applied by taking into account dynamic as well as static considerations? When these sorts of questions are emphasized, it appears that diversion of captive production is a less certain source of supply substitution than excess capacity or recycled products.

There is also an important flaw in the Guidelines. The dynamic of its approach is to postulate a tentative market based on cross-elasticity of demand at prevailing prices (what I have called "step one"), and then expand the market, thereby diminishing apparent market power, by including in the market additional firms that do not compete presently. The Guidelines ignore the possibility that tentative market power of particular firms or a group of firms should be adjusted upward because of the special ability of the firm or group of firms to exclude

183. See M. Handler, H. Blake, R. Pitofsky, & H. Goldschmid, supra note 46, at 157.

184. 1982 Merger Guidelines, supra note 6, § II(B); 1984 Merger Guidelines, supra note 6, §§ 2.21–2.23.

185. 1982 Merger Guidelines, supra note 6, § II(A); 1984 Merger Guidelines, supra note 6, § 2.11.

186. 1982 Merger Guidelines, supra note 6, § II(D); 1984 Merger Guidelines, supra note 6, § 2.4.

capacity in existence or other substitute competition as a source of supply that could defeat a cartel.

a. *Captive Production and Consumption.* — The Guidelines include in the market that portion of captive production (production presently committed to internal use) likely to be diverted to the open market in the event of a price increase.[187] Case law on the point has been split, with captive production counted in or out of the market in different cases based on theories that are not always reconcilable.[188]

Diversion of captive production to open market sales probably occurs far less frequently than theory or the Guidelines might suggest. For example, a firm's captive capacity may be committed through long-term supply contracts covering the downstream product—the only circumstance explicitly recognized in the Guidelines.[189] More important, captive capacity, unlike idle capacity or recycled products, involves gainfully employed assets that could be diverted to take advantage of what may be a "non-transitory," but also not permanent, price opportunity. And the diversion itself may have long-term consequences. Closing down a captive plant or even a product line in order to sell in the open market could be difficult because of labor contracts, or expensive because of fixed cost considerations. Investment to initiate or expand open market sales (such as an expanded distribution network) could be lost when the price increase disappears, and it may be hard to regain customers of downstream products lost as a result of diverting captive supply to the open market. Also, a reputation for unreliability, as the producer switches back and forth between captive and open market sales, can be a severe marketing disadvantage.

A second set of reasons why it is uncertain that captive production will be diverted arises when the market is examined in dynamic terms. Often a producer sells some portion of its production in the open market and uses some portion for captive uses. If the price increase is in the open market, presumably the producer will share in those high prices; if it diverts captive production to that market, it may defeat the higher price level.

Because of the long-term consequences of diversion of captive pro-

187. 1982 Merger Guidelines, supra note 6, §§ II(B)(3), (D); 1984 Merger Guidelines, supra note 6, §§ 2.23, 2.4.

188. See ABA Antitrust Section, supra note 36, at 133–36. Compare United States v. Aluminum Co. of Am., 148 F.2d 416, 424 (2d Cir. 1945) (including captive production in market share of alleged monopolist because defendants' decision whether to use or sell captive production affected total supply in open market) and In re Int'l Tel. & Tel. Corp., 104 F.T.C. 280, 410–11 (1984) (captive production included because as retail prices of captive bakeries declined, noncaptive chains pressed for price discounts from independent wholesalers) with Grumman Corp. v. LTV Corp., 665 F.2d 10, 14 (2d Cir. 1981) (captive production excluded because captive sellers lacked capacity to increase in-house work in event market produced profit opportunities).

189. See 1982 Merger Guidelines, supra note 6, § II(D); 1984 Merger Guidelines, supra note 6, § 2.4.

duction to the open market, this is a particularly appropriate area to ask whether, in the past, price increases led to the diversion of captive resources into the open market. If there is some evidence of actual past diversion by integrated producers, then the Guidelines are correct in their decision to include only the portion likely to be diverted rather than all captive production.[190] If there has been little or no diversion in the past, it is fair to presume that the resources would not be diverted in the future. Finally, when there is a conflict of incentives because a producer is active both in the open market and in captive markets, its captive production should be substantially discounted when computing total sales in the market.

b. *Excess Capacity in Existence.* — Excess capacity is difficult to define because it requires an additional inquiry as to whether it can be brought onstream at a reasonable cost. Excess capacity with an operating cost level at 10% above costs of current production is unlikely to defeat a 5% price increase. Also, excess capacity is hard to measure. Aside from reopening old plants, it could describe operating a second or third shift or working a labor force on holidays. Using lenient measures of "excess capacity," virtually all current production could at least be doubled.

Despite these measurement difficulties, if excess capacity is "efficient" in the sense that it could be brought onstream at a cost only slightly in excess of present production costs, it should be considered a direct check on cartel pricing. Indeed, if the market had been described in terms of capacity instead of production, which in some market settings is a more accurate standard of measure, "excess" capacity is already "in the market." The principal cautionary note relates to whether the manufacturer with efficient excess capacity will bring it into use, or go along with the price increase and the "umbrella" of cartel pricing. Often, the answer can be ascertained by checking past practices.

c. *Recycled Products.* — The Guidelines say that firms that produce recycled or reconditioned products are in the market if they represent "good substitutes"[191]—a reasonable position and about the best that

190. See Harris & Jorde, Antitrust Market Definition: An Integrated Approach, 72 Calif. L. Rev. 1, 58–59 (1984). For a contrary view, see P. Areeda & H. Hovenkamp, supra note 31, ¶ 520'b. Areeda and Hovenkamp hypothesize a market with raw material supplies, intermediaries, and end users. They would treat all captive production and consumption as in the market, in part because a vertically integrated firm might defeat an upstream cartel by expanding the portion of raw material that it supplies itself. That would reduce sales (and hence purchases) by the customers of the upstream cartel, thus helping to defeat the cartel. But that seems an example of bringing excess capacity into the market—a supply response that, as the next section shows, can be included with less caution than captive production—and not an illustration of how to treat captive production itself.

191. 1982 Merger Guidelines, supra note 6, § II(B)(2); 1984 Merger Guidelines, supra note 6, § 2.22.

can be accomplished in general guidelines.[192] While the total supply of used products is limited—and in that respect supply is less elastic than with excess capacity—that portion in existence will become more competitive as the hypothetical cartel price increases. Except with homogeneous products, recycled or reconditioned production rarely will constitute a "good substitute," but if it does, and if its costs are competitive, it should be counted in the market.

d. *Upward Adjustments of Market Shares.* — The Guidelines do not address possibilities that market shares in a tentative market on occasion should be adjusted upward to take into account that substitute competition, currently outside the market, is unlikely to be redirected successfully.[193] For example, suppose current occupants of the market have adopted an especially efficient form of production and, as a result, older excess capacity cannot be redirected at competitive costs. There needs to be some recognition, preferably in relevant market definition, that market shares in the tentative market should be augmented to reflect the special ability of the group of firms to run a successful cartel.

A similar point can be made with respect to particular firms. Suppose a market consists of twelve firms of equal size, only two of the twelve have substantial excess capacity, and those two merge. On the merits, that merger falls below 1,000 on the HHI and almost certainly would not be challenged.[194] But as part of the process of predicting whether market power can be exercised after the merger, the fact that the two firms most likely to be able to defeat a cartel are merging should be taken into account. The two merging firms also might be the only ones with production outside the market that could be diverted or

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192. This approach rightly rejects Judge Hand's conclusion in *Aluminum Co. of Am.*, a monopoly enforcement action under section 2 of the Sherman Act, that secondary or scrap aluminum did not limit Alcoa's market power and therefore was excluded from the market. See 148 F.2d at 425. The theory was that Alcoa controlled the new product (virgin aluminum ingot), and therefore it could control future supply returning in the form of secondhand goods. Most commentators have rejected that approach, noting that a firm is unlikely to diminish its sales of new products simply to keep used products out of the market many years later. 2 P. Areeda & D. Turner, supra note 15, ¶ 530c; Baker & Blumenthal, The 1982 Guidelines and Preexisting Law, 71 Calif. L. Rev. 311, 330 & n.72 (1983).

193. The Guidelines do take such considerations into account under "other factors" affecting the likelihood of successful collusion. For example, see 1984 Guidelines, supra note 6, § 3.412, indicating that the Department is more likely to sue if the "next-best" substitute product is significantly different from products in the market.

The problem with that approach is that the increase in market shares or concentration, derived from the process of relevant market definition, may be so low as to place the merger in a "safe harbor," see supra note 69 and accompanying text, so that the factor approach, which as a practical matter applies only to mergers in moderately concentrated markets, would rarely if ever come into play.

194. Twelve firms of equal size would produce an HHI of about 828. The post-merger HHI would be 965.

the only ones with captive production.[195]

One simple way to allow upward adjustments would be to include in the market share of the merging parties—assuming they are the sole or major source of substitute production—their excess capacity, captive production, or production from outside the geographic market that would be divertible to the market in response to a price increase. The market shares of the merging parties would then more accurately portray their market power and the true effect of the merger.

2. *Geographic Diversion and the Problem of Imports.* — Virtually all cases agree that if production, either foreign or domestic, outside a geographic market would be diverted to the market in the event of a substantial increase in price, then that outside production should be counted to some extent in measuring the market share of local firms.[196] The question of the extent to which the outside production should be counted is complicated and particularly controversial, however, because frequently the issue revolves around foreign imports to the United States. Increasingly, claims that the relevant geographic market is the entire world (or the entire "free world"), or about the likelihood and extent of diversion of foreign production to the United States, are at the heart of United States enforcement decisions.[197]

When the question of geographic diversion involves production from a foreign source, the straightforward approach would be to count present imports to the United States in the market plus any increase in imports likely to occur if postmerger prices were to increase. Two schools of thought have emerged that diverge from that approach. One would exclude or radically discount foreign sources of supply because they are more uncertain than domestic sources;[198] a second not only would include foreign sources of supply when measuring the market power of local producers, but also would count the entire production or even capacity of these foreign manufacturers if they made some significant sales in the United States in the past.[199]

The Guidelines are ambiguous in this area. When domestic geographic diversion is the issue, the Guidelines adopt the "redefinition" of market approach and include the entire production of the outside

195. A comparable suggestion in the context of measuring single firm market power is found in Kaplow, supra note 159, at 1831–32.

196. See, e.g., Consolidated Gold Fields, PLC v. Minorco, S.A., 871 F.2d 252, 260–61 (2d Cir.), cert. dismissed, 110 S. Ct. 29 (1989); *Aluminum Co. of Am.*, 148 F.2d at 445.

197. Hay, Hilke, & Nelson, Geographic Market Definition in an International Context, 64 Chi.-Kent L. Rev. 711, 711–12 (1988).

198. See Davidow, Antitrust, International Mergers and International Joint Ventures, Ann. Proc. Fordham Corp. L. Inst. 5, 11–12 (1974); Fox, Competition and World Markets: Law and Economics, 15 N.Y.U. J. Int'l L. & Pol. 299, 303–04 (1983) (summarizing arguments of others in favor of excluding or discounting foreign sources).

199. See 2 P. Areeda & D. Turner, supra note 15, ¶ 523b; Landes & Posner, supra note 7, at 963–69.

firm if it makes significant in-market sales.[200] The technique of the Guidelines with respect to product substitution or captive production, including in the market only those sales likely to be made or capacity likely to be used in response to a price increase, is not mentioned.[201] When foreign geographic diversion is involved, the Guidelines, without any reference to their position on domestic geographic market definition, appear to adopt an "adjustment" approach and count only those foreign sales presently made or likely to be made in response to a price increase.[202] But in a statement accompanying the release of the 1984 Guidelines, the Department emphasized that foreign sources of supply will be treated essentially the same as domestic sources,[203] implying that the entire foreign production will be included.

The market definition question at issue here—the inclusion of actual imports, increased imports as a result of a hypothetical price increase, all foreign production, or all foreign capacity—often is dispositive of merger questions, particularly as international trade becomes more of a factor in national markets. For example, assume a United States market with five equal-sized United States firms, each with 15%, and five foreign companies, with 5% each. Assume further that the foreign firms have twice as many sales abroad as in the United States and five times the capacity of their United States sales. If two of the United States firms merge and imports are excluded or radically discounted, the postmerger HHI would be as much as 2,800 and the transaction would be likely to be challenged. If the same two United States firms merged and only actual imports were included, the HHI would be 1,700, at the high end of the range where the government is likely to sue. If all foreign production is included in the market, the HHI would be 1,200, and the transaction would be rather unlikely to be challenged. Finally, if foreign capacity were included, the HHI would be about 1,155, not too far from the safe harbor as far as horizontal mergers are concerned. Equally important, the increase in HHI as a result of the merger would then be about 113, only slightly above the level at which the Department has indicated that it will not sue.[204] The mathematics underlying those conclusions is set out in the margin.[205]

200. See supra notes 155–159 and accompanying text.

201. Adding to the confusion, a footnote in the 1982 Guidelines noted that firms are not in the geographic market if they account for only a "small percentage" of in-market sales. What would constitute a "large percentage," and therefore justify market redefinition, is not specified. See 1982 Merger Guidelines, supra note 6, § II(C) n.21. The footnote itself disappears in the 1984 Merger Guidelines.

202. 1982 Merger Guidelines, supra note 6, § II(D); 1984 Merger Guidelines, supra note 6, § 3.23.

203. Department of Justice Statement Accompanying Release of 1984 Merger Guidelines, supra note 55, § 3.

204. See supra note 69 and accompanying text.

205. With exports excluded, each of the five United States firms would account for 20%; the combining firms would account for 40% or 1,600, and the three other firms

a. *Arguments to Exclude or Radically Discount Imports*. — Assume a tentative geographic market covering a single state includes shipments totalling 5% from outside the state. It is clear under the Guidelines and virtually all court decisions that at least current sales from outside the market into the market, plus additional domestic sales that would be diverted into the tentative market in the event of an increase, would be included. Why treat foreign sales differently?

The argument put forward by some commentators is that international trade is fragile, easily disrupted, and unpredictable.[206] Trade barriers such as tariffs, quotas, and voluntary restrictive agreements are unique to international trade. Currency exchange rate fluctuations make international trade uncertain.[207] Transportation costs can move up or down abruptly and curtail import opportunities. Buyer preferences are more pronounced in international trade; as a result, a foreign exporter can exhaust a particular niche domestically but not be in a position to expand in response to a domestic cartel. Finally, reliable data can be difficult to obtain because of limitations on the reach of administrative and judicial process in foreign countries.

The key fact, however, is that current importers already have overcome tariff, transportation, or other barriers that may exist.[208] As to the unreliability of data, actual present sales into the United States are not hard to determine. Moreover, if the increase of sales into the United States in response to a hypothetical price rise is based exclusively on data about imports in the past, data problems would not be

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400 each, for a total HHI of 2,800. If imports are included, the merging firms account for 30% (HHI of 900), each United States firm accounts for 15% (HHI of 225 each), and each foreign firm accounts for 5% (HHI of 25 each)—for a total of 1,700.

If foreign sales are included, each foreign company's sales triple. Thus, the "universe" expands to 150, and in that new universe, the merging firms account for 20% (HHI of 400), and each of the three United States firms and each of the five foreign firms for 10% each (total HHI of 800)—for a total of 1,200.

Finally, if foreign firm capacity is included, the universe expands to 200. The merging firms now have 15% (HHI of 225), each foreign firm accounts for 12.5% (HHI of 156), and each United States firm for 7.5% (HHI of about 56) for an HHI total of around 1,155. The premerger HHI for each of the merger partners was about 56 each (7.5 squared); the postmerger HHI for the combined capacity is 225 (15 squared)—a difference of 113. The Guidelines state that in the HHI zone above 1,000, the Government is unlikely to challenge a merger producing an HHI increase of less than 100 points.

206. See supra note 198 and accompanying text. This position is arguably consistent with the 1982 Merger Guidelines in that the Government asserted in those Guidelines that it would be "more cautious" in measuring import sales. 1982 Merger Guidelines, supra note 6, § II(C).

207. See Hay, Hilke, & Nelson, supra note 197, at 731–35.

208. The assumption here is that currently there are substantial present foreign imports. If this were not the case and the situation involved totally new entry, a different result would apply. See supra notes 203–205 and accompanying text. Also, a barrier in the form of a quota involves different considerations, see infra note 211.

serious.[209] Indeed, if supply in the past did not respond to substantial United States price changes, all but current imports should be ignored.

The Areeda and Turner treatise states the appropriate position well. Given the uncertainties of international trade, and the fact that trade barriers, transportation costs, and currency changes can occur in both directions, the soundest approach is to "take the present facts as one finds them" and not to speculate about future trade policy.[210] To exclude consideration of imports would be to miss the most pronounced current change in the nature of competition in United States markets.[211]

b. *Arguments to Include Actual Imports and to Augment to the Level of All Production or Capacity.* — To date, most cases dealing with a domestic United States market have included actual imports from abroad.[212] In an important article, however, Landes and Posner argued (in the context of a single firm monopoly) that when a foreign seller has some sales in a local market, all of its sales, wherever made, should be a part of the local market for purposes of computing the market share of a local seller.[213] They argued that if foreign sellers can make some sales, then domestic producers do not have the ability to exclude them entirely. If the foreign firms can make some sales, "they ought to be able to sell many units there at no appreciably higher costs, since they have only to divert output from other markets. It follows that if the domestic producer cannot keep foreign production out, then he cannot raise price without being inundated by such production."[214]

The authors recognize some qualifications: the theory applies best (though not exclusively) to homogeneous products, there must be non-negligible sales in the local market for a substantial period of time, and there must be prior sales supported by a distribution network adequate to service the entire market. With minor modifications, the Areeda and Turner treatise reaches a similar conclusion for all markets, domestic and foreign, but would incorporate only production, not capacity.[215]

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209. Given exchange rate fluctuations in the 1980s, there should rarely be situations in which enforcement agencies and courts cannot insist on hard data about the responsiveness of imports to higher or lower prices in the United States.

210. 2 P. Areeda & D. Turner, supra note 15, ¶ 523b6.

211. The sole exception might be situations in which foreign trade is subject to a percentage quota in the United States. In these situations, the Guidelines recognize, a domestic price increase that reduces domestic consumption would reduce the volume of imports into the United States. Moreover, potential cartel organizers would recognize the inability of firms subject to a percentage quota to defeat their efforts. In that situation, it makes sense to exclude not only hypothetical supply increases but also actual imports subject to that sort of quota. See 1984 Merger Guidelines, supra note 6, § 3.23; Justice Department International Operations Antitrust Enforcement Policy 40 (1988) (CCH Supp.); Hay, Hilke, & Nelson, supra note 197, at 711.

212. See cases collected in ABA Antitrust Section, supra note 36, at 145 n.716.

213. Landes & Posner, supra note 7, at 964.

214. Id.

215. 2 P. Areeda & D. Turner, supra note 15, ¶ 523b3.

While both commentaries offer exceptionally perceptive analyses of relevant market questions, on this point they seem wrong. In effect, they would urge that if Chrysler and Ford were to merge, all Toyotas (even cars scheduled for sale in Tokyo) should be counted in any measure of the market power in the United States of the merging parties; if Bethlehem Steel and USX were to merge, all steel produced in Germany (indeed, in the Landes and Posner formulation, all of the capacity of German steel mills) would be counted in measuring the market power in the United States of those merging parties.

A principal problem with the Landes and Posner approach, as well as that of Areeda and Turner, is that they ignore dynamic considerations. In the unrealistic event that all of the cars in Japan and all of the steel in Germany were diverted to the United States market, the price buyers would be willing to pay for cars in Japan and for steel in Europe would increase.

Also, for various strategic reasons, all foreign production would not be diverted to a single export market. We know enough about the realities of world trade to recognize that if any such diversion began to develop, the importing country would modify tariffs or quotas to insure that its industry was not overwhelmed, and the exporting country would take steps to prevent the radical depletion of the product in its own market. Also, the foreign producer is usually active in its own domestic market and only partly active in the United States. It therefore faces the typical strategic question of whether and how much it should divert production to the United States, recognizing that it may bring down the very United States prices that make its current trade profitable. A diversion of total production by a foreign exporter to the United States would have long-term consequences with respect to distributors and consumers in the foreign country. The idea that Toyota would abandon completely its distributors and customers in Japan to take advantage of a price increase in the United States that is nontransitory, but is still limited in duration, may make sense theoretically, but is in practice inconceivable.[216]

The Landes and Posner and the Areeda and Turner approaches also assume that if a company can make significant sales in a foreign market (say, 5% or 10%), then it can make substantially greater sales (say, 50%) at comparable costs. That result is possible but highly unlikely. A distribution network and possible follow-on servicing that can handle five or ten times the previous volume require investment and time to establish. Because of those costs, the foreign supplier may be inclined to expand slowly or not invest at all. Even if distribution of the

216. Some of the practical reasons why this would not occur are similar to the reasons why it should not be assumed that captive production would not be diverted to open-market sales. See supra note 189 and accompanying text.

particular product is accomplished through an independent network of dealers, they may not be able to handle promptly the expanded volume.

Geographic diversion as a source of supply to defeat a cartel is unusually vulnerable to a deterrence strategy. For the very reason that producers are likely potential entrants—they are already in the business and selling the product in another region—they easily can be deterred or excluded through strategic price cuts or other maneuvers by incumbents. With few "sunk costs," they can easily withdraw, and once they do, the cartel price can be reintroduced.

A final point is most persuasive. Research concerning imports and prices during the 1960s and 1970s demonstrates that when actual domestic prices in the United States increased (often as a result of currency fluctuations), there was not a surge of foreign imports in many industries.[217] Approaches that incorporate all divertible foreign production or capacity do not hold up when examined in light of actual practice.

c. *Conclusion: Redefinition Versus Adjustment Again.* — The controversy about proper treatment of foreign imports in defining relevant market is another example of the recurring question of whether all of a firm's production or capacity should be included in a market (redefinition), as opposed to including only those sales likely to be made or capacity likely to be used in the market (adjustment). When the issue turns on present sales at present prices, and the test is whether buyers would shift to substitute products in sufficient numbers to defeat a significant price increase, reasons were offered earlier why redefinition makes sense.[218] Because a firm is only included under the Guidelines if its sales or capacity could defeat a price increase, there is no reason to introduce (and many practical difficulties would attend) a more refined market power analysis.

When the issue involves supply substitution and captive sales, and the test is whether additional production would be drawn into the market, though not necessarily in sufficient quantity to defeat a price increase, the Guidelines, rejecting recent scholarship on the subject,[219] opt for an adjustment approach. For several reasons, that seems exactly right. Assuming only a portion of a firm's production would be drawn into the market in response to a hypothetical price increase, and assuming further that the additional supply would not defeat a price increase, grave distortions would attend counting all production or capacity in the market. For reasons noted, it is not clear that any, much less all, substitute production will be switched to a market in response to a modest price increase.[220] Also, these supply substitution situations

217. See Hay, Hilke, & Nelson, supra note 197, at 729–36.

218. See supra notes 155–159 and accompanying text.

219. See supra note 159.

220. See supra notes 187–190 and accompanying text.

often involve the most speculative evidence, and a cautious attitude toward inclusion seems justifiable.

The most important of these supply substitution situations involves imports. On that issue, the Guidelines probably intend an adjustment approach, although they are not clear on the point.[221] Actual imports properly should be included in the market as well as foreign production likely to be diverted in response to a price increase. But predictions about the likely reaction of foreign producers and distributors to domestic price moves are extremely uncertain and often will be based on the most unreliable evidence. As a result, the idea of counting all foreign production or capacity in a local market if a modest amount is already there lacks both theoretical and empirical support. Clarification of the Guidelines to that effect is necessary.

3. *Supply Substitution.* — Although a product as presently manufactured may not be an adequate substitute for another, if the production process could be redesigned promptly and cheaply to produce the second product, then that potential "supply substitution" must be counted in the product market. If the redesign was entirely costless, it might be logical and convenient to include both products in the same product market; if significant delay or costs were involved, then only the production supply that could be converted quickly and cheaply should be taken into account.

While supply substitution has been mentioned frequently in the case law,[222] judicial decisions often deal with this issue poorly, either by ignoring or giving little weight to supply substitution,[223] or by taking supply substitution into account without an adequate analysis of whether it was more than a theoretical possibility.[224]

The Guidelines handle these supply substitution questions well. The 1982 Guidelines provided that existing production and distribution facilities that could be switched easily and economically so as to produce and sell in a relevant product market within six months would be included, but that only sales likely to be made or capacity likely to be used would be counted. The 1984 Guidelines adopt essentially the same position, although the period of time during which the switch can occur is extended to one year. The six-month or one-year period is arbitrary, and either figure could be used.

Once again, however, the question that the Guidelines neglect to

221. See supra notes 63–65 and accompanying text.

222. See, e.g., Brown Shoe Co. v. United States, 370 U.S. 294, 325 n.42 (1962); United States v. Columbia Steel Co., 334 U.S. 495, 510–11 (1948); In re Heublein, Inc., 96 F.T.C. 385, 576 (1980).

223. See, e.g., Kaiser Aluminum & Chem. Corp. v. FTC, 652 F.2d 1324, 1330 (7th Cir. 1981); Reynolds Metals Co. v. FTC, 309 F.2d 223, 227 (D.C. Cir. 1962).

224. See, e.g., United States v. Calmar Inc., 612 F. Supp. 1298, 1304 (D.N.J. 1985); Carter Hawley Hale Stores, Inc. v. The Limited, Inc., 587 F. Supp. 246, 253 (C.D. Cal. 1984).

address is what sort of evidence properly can be relied upon to establish supply substitution. Because the producer is already in a related business, the likelihood of a switch to the market in response to a significant price increase is greater than completely new entry. Nevertheless, that switch is by no means automatic or certain. Like diversion of captive production, the production and distribution facilities are already employed profitably in another market, and the firm may be reluctant to switch. Expansion of distribution facilities may be required, which may be costly, and present customers served outside the market may be lost and difficult to regain if customers in the cartelized market are to be served other than through use of excess capacity. Finally, the usual strategic questions must be addressed. If, as frequently is the case, the supply substitution comes from a company that already has some sales in the market in which prices have increased, the seller must decide whether to augment supply and possibly bring down increased prices, or to leave the market in short supply and take advantage of increased profits. For reasons previously discussed,[225] a proper test would require a showing that the out-of-market producer actually had switched in the past to take advantage of higher prices. When that is not the case, supply substitution either should be ignored or should be taken into account at a discounted level only upon the clearest proof of capacity, interest, and economic incentive of the supplier to switch into the market in the relatively near future. While there are mixed incentives because the supplier already is selling in both markets, potential supply substitution, like captive production, should be discounted.[226]

4. *Entry*. — When productive assets could be constructed to provide products or services that might compete in a market, but are not presently in existence, the possibility of new entrants should not be taken into account in defining markets.[227] The reality, timing, and amount of competition that may arise from assets not in existence are all matters too uncertain to consider directly in measuring market power.

Under the Guidelines, new entry is not part of the market definition process, but the absence of barriers to entry is a factor that will be considered in judging whether a merger of firms of a particular size

225. See supra notes 140–151.

226. A case that handled the supply substitution issue well is Telex Corp. v. IBM, 510 F.2d 894 (10th Cir.), cert. dismissed, 423 U.S. 802 (1975). One issue was whether IBM's peripheral equipment (for example, memory units) was a separate market, or whether the peripheral equipment of other manufacturers could be converted promptly and cheaply so as to compete with the IBM equipment. The court of appeals noted that other peripherals could be converted easily and cheaply (one percent of total cost), and that a cheap "interface" could make non-IBM equipment compatible with the IBM system. The Court then went on to note several instances in which non-IBM producers actually had adjusted their product in order to be competitive with IBM equipment. Id. at 915–19.

227. See 2 P. Areeda & D. Turner, supra note 15, ¶ 519b.

should be judged illegal.[228] That approach is necessary because even firms with substantial market shares cannot exercise market power if there are no barriers to entry. The real issue with respect to entry, however, is whether the Department of Justice and the courts will require proof that entry is likely to occur or whether ease of entry will be assumed based on the fact that nothing about the market precludes entry. Proof of a likelihood of entry, including questions of the capacity, interest, and economic incentive of the firms thought to be potential entrants, should be required.[229] That entry also should be demonstrated to be reasonably prompt and to be of a magnitude adequate to defeat the exercise of market power.

E. *Possibility of Cluster Markets*

It was well established in the pre-1982 case law that market power could be measured in "cluster markets,"[230] but the concept was omitted without comment, and presumably rejected, in the 1982 and 1984 Guidelines. Although the concept is controversial in the law and has been misapplied in several cases so as to exaggerate the appearance of market power,[231] all judicial decisions nevertheless agreed that there were some core situations to which this market construct applied.[232]

In a cluster market, a range of products can be grouped together to measure market power, even though they are not good substitutes, because they are related or complementary in production or distribution. In the consumer market, examples include department stores or supermarkets where for a variety of reasons—parking and shopping convenience, billing, simplified credit—consumers prefer to do all of their shopping in one place.[233] In the industrial market, an example would be various pieces of oil pipe handling equipment used in downhole oil drilling, when the purchaser, in the event of delay or failure, seeks to avoid quarrels about which piece of equipment was responsible and so buys all equipment from a single source.[234]

In *United States v. Philadelphia National Bank*,[235] the Supreme Court recognized commercial banking as a single market and, as a result, ag-

228. 1982 Merger Guidelines, supra note 6, § III(B); 1984 Merger Guidelines, supra note 6, § 3.3. In both formulations, entry that is unlikely to occur within two years is disregarded.

229. See supra notes 187–190 and accompanying text.

230. See, e.g., United States v. Grinnell Corp., 384 U.S. 563, 573 (1966); United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 356–58 (1963).

231. See infra note 239.

232. See id.

233. Cf. In re Grand Union Co., 102 F.T.C. 812, 1044 (1983) (noting that consumers may, over time, use both cluster and limited service markets).

234. That may have been the justification for the cluster market of surface rotary drilling tools found by the court in United States v. Hughes Tool Co., 415 F. Supp. 637, 641 (C.D. Cal. 1976).

235. 374 U.S. 321 (1963).

gregated in that market such disparate services as demand deposits, personal loans, savings deposits, investment advice, and safe deposit boxes. The Court caused some consternation by emphasizing as justification for a "commercial banking" services market "settled consumer preferences," which could be based on "habit, custom, personal relationships, convenience, doing all your banking under one roof."[236] Cluster market concepts based on consumer habit or convenience could sweep up a wide variety of complementary services, many of which would not be insulated from competition from less than full-line companies. Four years later, in *United States v. Phillipsburg National Bank & Trust Co.*,[237] the Court clarified its theory by emphasizing that cluster markets are justifiable only when efficiencies of production or distribution produce cost advantages that in turn lead consumers to do their business with a single supplier.[238]

While the cluster market concept almost certainly has been abused,[239] there should be little quarrel that in some circumstances cluster markets validly describe the nature of competition. A good example is data processing, in which a full line of equipment includes a central processing unit, memory and storage devices, and printers and scanners. A full-line company like IBM could raise the price of a piece of peripheral equipment modestly before it would lose substantial business to single product suppliers. Eventually, customers may mix and match equipment from a variety of suppliers, but, depending on the facts, they may be slow to do so because of distribution efficiencies and reputation advantages of the full-line company.

In merger enforcement, elimination of the cluster market concept usually results in understatement of market power. Of course, the concept can be used both offensively and defensively. Two merging companies may have only modest shares of individual products or services, but a substantial share in a "full-line" market. In that event, a cluster market analysis could result in blocking the merger. On the other hand, firms with a substantial share of one of the component products or services may insist that the only valid way to measure market power is by examining a market composed of a full line of products or services. Nevertheless, if the two merging firms control a substantial share of one of the important components—demand deposits in commercial banking, central processing units in information processing, drill bits in

236. Id. at 357 & n.34. Confusion in the cases and literature is summarized in ABA Antitrust Section, supra note 36, at 139 n.692.

237. 399 U.S. 350 (1970).

238. Id. at 360–62.

239. It is questionable whether "commercial banking" is a proper cluster market, although the concept was probably valid at the time *Philadelphia Nat'l Bank* was decided, see 2 P. Areeda & D. Turner, supra note 15, ¶ 535e; even more questionable instances include United States v. Grinnell Corp., 384 U.S. 563, 566–73 (1966) (various property protective services); United States v. Bethlehem Steel Corp., 168 F. Supp. 576 (S.D.N.Y. 1958) (various steel mill products).

oil field equipment—chances are good that the component will be defined properly as a separate product market or submarket.

In the end, true cluster markets situations in which there are significant production and distribution efficiencies for full-line companies are rare. Nevertheless, a Guidelines approach that drops the entire category, instead of sharpening its focus, demonstrates again the tendency of the Guidelines to understate market power when close questions are presented.

CONCLUSION

The 1982 and 1984 Department of Justice Merger Guidelines were a bold and thoughtful attempt to clear up the doctrinal mess surrounding relevant market definition. They were drafted during a period when confidence in the role of antitrust was unusually low, however, and the frequent tilt in the Guidelines toward market definition that makes market power appear insignificant reflects that ideological view.

At times during the 1980s, the enforcement agencies, particularly the Federal Trade Commission, and some courts carried the tendency of the Guidelines to diminish apparent market power to inappropriate extremes. Guideline drafting is a continuing process and the 1982 and 1984 Guidelines sections on relevant market definition offer a solid base on which to build. Nevertheless, for reasons discussed in this Article, those Guidelines need to be clarified and, in important respects, amended.