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BARRIER ANALYSIS IN ANTITRUST LAW*

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The ideal analysis of alleged antitrust law violations should include all significant economic factors bearing on anticompetitive activity in the marketplace. However, certain economic factors are often ignored by legal commentators. Barriers to entry has been one of them.[1]

Barriers to entry are the conditions or devices of a specific industry which tend to keep out prospective competitors. They may be thrust upon an industry as a necessary consequence of its operation, or they may be created whole cloth by industry members who are actively seeking to discourage new competition.[2] The classic analysis describes three kinds of barriers: economies of scale, absolute cost advantages, and product differentiation advantages.[3] Advertising intensity[4] and the size of existing firms have also been regarded as separate barriers to entry.

Firms may reflect the presence of these barriers by making pricing

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* The views here expressed are those of the author alone, and do not necessarily reflect the views of the Federal Trade Commission.

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1 An extensive search of legal periodicals has uncovered only one article considering the interrelationship between entry barrier theory and legal precedent. That article primarily deals with low barriers as a defense to antitrust actions. *See* Low, *Ease of Entry: A Fundamental Economic Defense in Merger Cases*, 36 GEO. WASH. L. REV. 515 (1968) [hereinafter cited as Low].

2 Barriers to entry have been alternatively defined as:

> The . . . obstacles that impose on newcomers higher costs per unit than those encountered by the established firms, or disadvantages that compel newcomers to sell their product for a lower price per unit than established firms can get for a product of comparable quality.

Mueller, *The New Antitrust: A "Structural" Approach*, 1 ANTITRUST L. & ECON. REV., Winter 1967, at 87, 89 n.7. This definition views barriers from a common, but technically fallacious, vantage point. A barrier, in both operation and theory, denies entry, making the appellation "newcomer" and any characterization of costs and prices misplaced. More accurately, what Mueller has defined are handicaps to new competition. This definition may still be helpful for measuring entry barriers and predicting higher per unit costs or lower per unit revenues by would-be entrants. It is such predictions that actually discourage entry.

3 *See, e.g.*, J. BAIN, BARRIERS TO NEW COMPETITION 14 (1956) [hereinafter cited as BARRIERS].

4 Advertising is frequently placed in the product differentiation category. However, it may also exhibit, in a pronounced manner, the properties of other barriers. It will, therefore, be considered separately in this article. *See* notes 109-25 and accompanying text *infra*.

decisions[5] intended to discourage new entry into the industry.[6] The higher the barriers, the less likely new entry will occur, and hence the less existing competitors will be affected in their pricing and other decisions by the threat of such entry.[7] In this way, the power to exclude potential competitors may be a significant element in the destruction of presently effective competition.[8]

Entry barriers have not received the recognition they deserve. Moreover, when they have been recognized, it frequently has been in a random, slipshod manner. However, if the analysis of barriers to entry could be made more uniform and comprehensible to judges, entry barriers would be accorded a more merited, prominent role in proving and disproving anticompetitive activity.

I

UTILITY OF BARRIER ANALYSIS

No one disputes the importance of barriers to entry as an element of market structure.[9] What is disputed is the relative importance that barriers assume in accounting for anticompetitive conditions and the role that barrier theory should play in determining antitrust violations. The courts[10] and some economists[11] have leaned heavily on a market share and concentration[12] approach to prove anticompetitive activity. While present competition reflected in market share analysis is significant, the threat of potential competition can exert a major, sometimes the major, influence in limiting any anticompetitive effects on present competition.[13] Firms make pricing decisions and other business judg-

5 Such decisions might require pricing agreements among existing competitors, which are directly prohibited by § 1 of the Sherman Act, 15 U.S.C. § 1 (1970).

6 *Cf.* J. BAIN, INDUSTRIAL ORGANIZATION 255 (1968) [hereinafter cited as BAIN].

7 *Cf.* LOW 540.

8 THE ATTORNEY GENERAL'S NATIONAL COMMITTEE TO STUDY THE ANTITRUST LAWS, REPORT 327 (1955).

9 *See, e.g.*, R. CAVES, AMERICAN INDUSTRY: STRUCTURE, CONDUCT, PERFORMANCE 34 (1964) [hereinafter cited as CAVES].

10 *See, e.g.*, United States v. Continental Can Co., 378 U.S. 441 (1964); United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963) (presumptive violations established by achievement of set market share).

11 *See generally* BARRIERS 217-18.

12 Concentration is simply the addition of the market shares of the largest firms in an industry. BAIN 78.

13 *See, e.g.*, Greenhut, *An Economic Theory for Use in Antitrust Cases*, 7 HOUSTON L. REV. 318 (1970). In an effort which is somewhat recherché, Professor Greenhut uses the framework of spatial economics to conclude that in oligopolistic industries the prevention of collusion and the dissolution of entry barriers are the most important factors triggering competitive behavior. *Id.* at 323-25.

ments recognizing the likely response of potential market entrants. Particularly in a noncompetitive, oligopolistic setting, firms may adjust their activities to accommodate comfortably the existing competitors and their practices. But the threat of new competitors may make firms somewhat more cautious about acting like traditional oligopolists.[14] Thus, the higher the barriers to entry, the less existing firms need be constrained by the threat of new entry, and the more likely they will be able to maintain their relative market power without deviating from profit-maximization principles.[15]

If high barriers and high industry market shares were always found together, then the preoccupation with market shares would be justified, even if it were the barriers and not high market shares that caused the prohibited anticompetitive conduct. Moreover, if a firm's high market share alone caused the prohibited conduct, then courts would be justified in ignoring entry considerations entirely.

Although market share is highly correlated with the height of entry barriers,[16] the correlation is not perfect. In an industry where a high correlation between entry barriers and market share does not exist, market share analysis must show anticompetitive behavior if it is to be an effective test device. Such analysis, however, is not always

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14 C. WILCOX, COMPETITION AND MONOPOLY IN AMERICAN INDUSTRY 7-8 (TNEC Monograph No. 21, 1940); Turner, *Advertising and Competition*, 26 FED. B.J. 93, 94 (1966) [hereinafter cited as Turner]. *See also Hearings on Monopoly Power Before the Subcomm. on the Study of Monopoly Power of the House Comm. on the Judiciary*, 81st Cong., 1st Sess., ser. 14, pt. 2B, at 815-16 (1949) (statement of H. Steinkraus, President of the United States Chamber of Commerce).

As to the effect of low barriers on oligopolists where an attack on concentration fails, Mueller concludes:

> [T]here is a "second line of defense" against the harmful *effects* of . . . collective monopolization—that even though the battle to prevent undue concentration has been lost, the actual *fruits* of victory, low prices and high output, can still be squeezed from the industry if the entry barriers around it can be kept sufficiently low.

Mueller, *supra* note 2, at 111 (emphasis in original). Mueller's "lost battle" may realistically be a planning one, to wit, the decision not to issue a complaint seeking market restructure. It can hardly be expected that if litigation fails to prove anticompetitive conditions meriting a divestiture remedy that the prosecuting agency will regroup and litigate for a less exhaustive order. It is possible, though, that a planner would seek a less ambitious complaint *ab initio*.

15 REPORT, *supra* note 8, at 324; *cf.* F. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE (1971) [hereinafter cited as SCHERER]. "[S]ignificant entry barriers are the *sine qua non* of monopoly and oligopoly, for . . . sellers have little or no enduring power . . . when entry barriers are non-existent." *Id.* at 10.

16 BAIN 257, 299. The tire, gypsum products, and metal containers industries, for example, are all highly concentrated, but have relatively low entry barriers. Mann, *Seller Concentration, Barriers to Entry, and Rates of Return in Thirty Industries 1950-1960*, 48 REV. ECON. & STATS. 296, 299 (1966) [hereinafter cited as Mann].

effective. High market share and concentration alone do not always show anticompetitive conditions. Such conditions may prevail even in the absence of high concentration.[17] Although courts may spuriously label a firm's conduct anticompetitive, using market share analysis,[18] logic might suffer less if more attention were paid to entry barriers.

Even if reliance upon market share analysis proves well-placed, it is an unwieldy test, and its application is likely to precipitate lengthy disputes relating to definition and measurement.[19] Moreover, without a careful definition of the appropriate market, market share analysis is "whimsy"[20] and likely to be arbitrary.[21] To avoid the possibilities of inaccuracy and unfairness, it would be wise to place greater emphasis on more reliable barrier analysis when market share analysis is unreliable. When entry barriers and market share seem equally indicative of anticompetitive effect, the opportunity to do this safely is available.[22]

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17 *See* C. KAYSEN & D. TURNER, ANTITRUST POLICY 101-06 (1959) [hereinafter cited as KAYSEN & TURNER]; Rathbone, *A Businessman's View of Some Antitrust Problems—Particularly Mergers, Acquisitions and Corporate Size*, 27 ABA ANTITRUST SECTION 47, 50-52 (1965); *cf.* Shepherd, *The Elements of Market Structure*, 54 REV. ECON. & STATS. 25, 30 (1972) [hereinafter cited as Shepherd]. Professor Shepherd showed a high correlation between market share and profits, but very little between concentration and profits. High profits is a shorthand, although not an exclusive, way of identifying anticompetitive market conditions.

18 *See, e.g.*, United States v. Continental Can Co., 378 U.S. 441, 467 (1964). Mr. Justice Harlan criticized the Court's simplistic, heavy-handed use of market share analysis. *Id.* at 467-70 (Harlan, J., dissenting); *cf.* BARRIERS 181 (workable competition "quite conceivable" even with high concentration).

19 For example, in A.G. Spalding & Bros. v. FTC, 301 F.2d 585 (3d Cir. 1962), both definition and measurement of the appropriate baseball markets were hotly disputed and dealt with in excruciating detail. *See also* Hall & Phillips, *Antimerger Criteria: Power, Concentration, Foreclosure and Size*, 9 VILL. L. REV. 211, 229 (1964) (use of market definition in merger cases criticized).

20 KAYSEN & TURNER 134.

21 *See, e.g.*, United States v. Pabst Brewing Co., 384 U.S. 546 (1966). In *Pabst*, the Justice Department sought to force the divestment of Blatz Brewing Company by Pabst Brewing Company under § 7 of the Clayton Act, 15 U.S.C. § 18 (1970). The Supreme Court split three ways in trying to decide how the market ("line of commerce") should be defined geographically. Mr. Justice Harlan, in a concurring opinion, criticized the majority's apparent refusal to hew to the line of "commercial realities" in setting geographic market boundaries. 384 U.S. at 556. He noted that the possibilities for "gerrymandering" would thereafter be "limitless." *Id.* The case demonstrates that uncertainties of market definition may seriously jeopardize accurate appraisal of anticompetitive conduct and vitiate the worth of market share analysis. It is further clear that the uncertainites tied to such analysis are not limited to the problem of geographical demarcation. *See also* United States v. Continental Can Co., 378 U.S. 441 (1964); H. EINHORN & W. SMITH, ECONOMIC ASPECTS OF ANTITRUST 404-05 (1968).

22 Barriers are not without their own measurement problems, but measurement of barriers may not be as important to their use.

This is not to suggest that barrier theory cannot independently be a viable determinant of anticompetitive activity. Although the evidence is mixed, there are indications of its usefulness. Industry profits, a widely-used indicator of competitiveness, bear some relation to entry barriers. At least one writer has demonstrated the independent influence of entry barriers over profits. Dr. H. Michael Mann, in his update[23] of Professor Joe Bain's classic study,[24] found that profits in highly concentrated industries were higher when entry barriers were higher,[25] and that higher profits tended to be maintained over time by industries with higher entry barriers.[26] However, he found no correlation between lower barriers and profit rates.[27] This may demonstrate merely that blockaded entry can raise profits, or it may point out the problems in measuring the height of all but the most blatant barriers.[28] It may also show that businessmen do not themselves perceive or act on the lower, although protective, barriers present in their industries, or contrarily, that they practice limit pricing which keeps out entrants but reduces profits.[29]

Professor William G. Shepherd's recent study of 231 firms, in which he related various market elements to profits, neither adds to nor detracts from the above observations.[30] Generally, he concluded that entry barriers were minimally related to profits.[31] Market share had five times the power of barriers in determining high profits.[32] Nevertheless, even within this finding there are indications of the relative importance of entry barriers. First, Shepherd found high barriers "consistently positive and significant" in relation to profits.[33] Second, like Mann and Bain, he was unable to conclude that lower barriers play any role in profitability, but he may have faced the same uncertainties of measurement that plagned Bain. Indeed, Shepherd remarked that the results probably understated the significance of barriers since their measurement was "nonscalar and approximate."[34]

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23 *See generally* Mann.

24 *See generally* BARRIERS.

25 Mann 300.

26 Mann, *A Note on Barriers to Entry and Long Run Profitability*, 14 ANTITRUST BULL. 845 (1969).

27 Mann 300.

28 *See* BAIN 456-57.

29 In theory, limit pricing would achieve its greatest use in industries with intermediate barriers to entry. BAIN 275. *See* notes 140-42 and accompanying text *infra*.

30 Shepherd 25.

31 *Id.* at 30, 35.

32 *Id.* at 34.

33 *Id.* This supports the findings of Bain and Mann. *See* BAIN 456; Mann 300. *See also* note 25 and accompanying text *supra*.

34 Shepherd 34.

Third, for some reason Shepherd separated "advertising intensity" from his barriers category. As will be shown below,[35] advertising intensity is a significant, in some industries the most significant, entry barrier. Not surprisingly, Shepherd found advertising to be strongly correlated with profits.[36] Particularly in consumer-goods industries, it is unrealistic to evaluate entry barriers without giving prime consideration to the intensity of advertising. Finally, Shepherd conceded that, despite his findings about entry barriers, "their descriptive and theoretical uses may still be important."[37]

Significance also may be attached to entry barriers for reasons unrelated to profit rates. Lower barriers permit the entry of new firms which frequently bring along innovative and constructive production techniques.[38] Established firms have been characterized as frequently "backward . . . conservative in approach and relatively unreceptive to totally new ideas."[39] New firms, however, often adopt the innovative techniques which bring about technological advances.[40] Further, such advances themselves can increase the breadth of the industry and create more competitive conditions.[41]

Preserving penetrable barriers also serves the congressionally implied purpose of encouraging small-scale entry (the expressed purpose being to encourage small business).[42] For example, Senator Kefauver, co-sponsor of the 1950 amendment to the Clayton Act, said at that time:

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35 *See* notes 109-25 and accompanying text *infra.*

36 Shepherd 32. Shepherd found advertising only moderately less correlated with profits than market share. *Id.* at 31, Table 3 (market share .34, advertising intensity .22 (relation to profits)).

37 *Id.* at 35. Professor Scherer, reviewing the literature up to the time of Shepherd's analysis, concluded, "[T]he results show rather forcefully that the ability of firms . . . to earn supra-normal profits is related positively to the height of entry barriers." SCHERER 232.

It also has been implied that high entry barriers are responsible for increased concentration in certain industries. Mueller found that concentration over time was falling in the producer-goods sector, but rising in the consumer-goods sector, and rising to the highest levels in "those industries that sell 'highly differentiated' products." Mueller, *Sources of Monopoly Power: A Phenomenon Called Product Differentiation,* 18 AM. U.L. REV. 1, 15-21 (1968). Product differentiation, it will be shown, is the most virulent strain of entry barrier. *See* notes 97-108 and accompanying text *infra.*

38 CAVES 100. *See also* SCHERER 377.

39 CAVES 100.

40 Professor Caves notes that neither Bell Telephone nor General Electric initially displayed any interest in the development of the radio. *Id.*

41 2 S. WHITNEY, ANTITRUST POLICIES 409 (1958). Dr. Whitney cites the movie theatre industry, which experienced considerable new entry with the advent of drive-ins. *Id.*

42 *Cf.* Crown Zellerbach Corp. v. FTC, 296 F.2d 800, 825 (9th Cir. 1961): "Congress was not concerned about increased efficiency; it was concerned about the competitor—the small businessman . . . ." *Accord,* United States v. Von's Grocery Co., 384 U.S. 270 (1966).

> [I]f our democracy is going to survive in this country, we must keep competition, and we must see to it that the basic materials and resources of the country are available to any little fellow who wants to go into business.[43]

Representative Celler, the other sponsor of that amendment, cited the inability of "ambitious young men" to enter the soap, automobile, whiskey and tobacco industries as evidence of the need for strengthened antimonopoly measures.[44]

In *Brown Shoe Co. v. United States*[45] the Supreme Court viewed the interest of Congress as being "with the protection of *competition*, not *competitors*."[46] This language would also seem to preclude any special policy to protect would-be competitors. However, the Court noted that Congress also intended that competition be promoted through the preservation of small businesses, even if occasional higher costs should prevail,[47] and that entry barriers should be considered in reviewing the structure of a specific industry.[48] New businesses are frequently small, and their protection on the brink of entry should be within the ambit of the expressed policy protecting small businesses already in the market. Therefore, the importance of barriers to entry should sometimes loom larger as a judicial matter than even economic analysis would allow.

Barrier analysis would also highlight the often aggressive nature of anticompetitive activity and would force courts to tailor their decrees to the more obvious and affirmative practices of unfair competition. There has been, for example, considerable criticism of the ostensible judicial attitude that bigness alone begets anticompetitive conduct.[49] Insofar as pricing liberties are taken or other practices are used to shut out prospective entrants from the market, the barrier approach may pinpoint infractions more rationally than the seemingly obtuse standard of bigness.

Some barriers, such as scale economies and certain cost advantages,

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43 *Hearings*, *supra* note 14, ser. 14, pt. 13, at 12 (1949) (statement of Senator Kefauver).

44 *Id.* at 15 (statement of Representative Celler). He remarked specifically that "only one with the wealth of Croesus would compete" against the "Big Three" automakers. *Id.*

45 370 U.S. 294 (1962).

46 *Id.* at 320 (emphasis in original).

47 *Id.* at 344.

48 *Id.* at 322.

49 *Cf.* United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945). *See generally* Berghoff, *The Size Barrier in Merger Law—Or Antitrust by the Numbers*, 27 OHIO ST. L.J. 76 (1966). *Contra*, Berry, *Corporate Bigness and Diversification in Manufacturing*, 28 OHIO ST. L.J. 402 (1967).

may naturally characterize the established company and may be difficult, as well as undesirable, to combat. Courts should treat natural barriers differently than barriers which firms affirmatively erect themselves. Anticompetitive activity could be checked without requiring divestments and major industry upheavals if courts excised only those practices which are disclosed by barrier analysis to be within the offending firm's control.[50] For example, cornering the market for a scarce resource, well beyond a firm's industrial need, or modifying product style too frequently, thereby addicting consumers to the habit of desirability obsolescence, represent the kinds of barrier raising activities that should be enjoinable.[51]

Additionally, the judicial approach to correcting competitive imbalances may be greatly simplified by the barrier approach. Market analyses and the long discovery they often entail could be avoided since for some barriers only specific, highly visible practices would be reviewed and enjoined. The government could simplify its task in many instances by bringing more modest barrier-oriented actions with the realization that it only needs to trim high barriers to restore competitiveness.

The final argument for barrier analysis relates to the way courts treat economic data. Records become voluminous, with paid economic experts squaring off[52] and producing thousands of pages of documents

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50 The "conduct" approach has come under recent, sensible attack. *See, e.g.*, Mueller, *supra* note 2, at 105-10; *cf.* Williamson, *Dominant Firms and the Monopoly Problem: Market Failure Considerations*, 85 HARV. L. REV. 1512, 1515 (1972). This author, generally speaking, joins that bandwagon. However, when conduct clearly accounts for the competitive imbalance and creates a warped structure, it is conduct that should first be challenged. As will be shown, in some sectors of the economy and for some entry barriers, conduct is the root cause of any imbalance. A limited conduct approach also conforms to the author's view that lighting a candle is an advancement over cursing the darkness. For illumination, see notes 426-29 and accompanying text *infra*.

51 It is likely that firms do control some entry barriers which should be left alone. For example, managerial excellence, certainly encouraged by all firms, would be difficult and unfair to enjoin. The antitrust laws cannot realistically rely on a policy of suppression of the human spirit and the personal will to succeed as an antidote to anticompetitiveness.

52 With respect to economic experts, vis-à-vis barrier experts, one hypothesis as to the preferability of the latter is that expert witnesses, brought in to testify as to market definition and share, are commonly practicing economists or professors who have become expert in the subject industry by every means but experience. They are "employed" by the party for which they testify and may be "experts" in numerous areas for different "employers."

An expert in barriers, on the other hand, not required to evaluate the cosmic concept of "market," may be more likely a working member of the industry itself. Such a witness may be more capable, for example, of evaluating plant efficiencies and understanding the myriad forces at work in the price or style change decisions of any one

and testimony.[53] This swamp of economic data in the record does not lead to sane or learned resolution of the issues. Courts are frequently tempted by the sirens of market share, with its deceptively easy expression. By a simple table of percentages, courts may take the path of least resistance and effectively ignore other economic criteria.[54] Some of the problems of market share analysis, discussed above,[55] suggest that this unusual reliance may be risky.[56] Barrier analysis, on the other hand, though capable of generating a similar sea of detail, does not depend upon inherently suspect and deceptive numerical analysis. Barriers, if present, are relatively easy to identify, albeit difficult to quantify.[57] But the enjoining of particularly offensive entry-obstructing conduct may hinge on its mere existence, not on the extent of its use.

Even if barrier theory becomes prominent in the antitrust regimen, courts might confuse the issues, use it incorrectly with other tools of analysis, or still ignore it entirely.[58] The possibilities for nonuse or misuse of barrier analysis, however, should not militate against the attempt to elevate its importance in certain cases.[59]

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company's management. It is also true that his testimony would be subjective and may be paid for by the party for which he testifies. However, since his knowledge would be limited to one area, perhaps a higher degree of accuracy and honesty could be expected of him. Of course, in many instances the quality of expert testimony will not vary with the subject matter or the witness's source of expertise.

53 Consider, for example, Litton Indus., Inc., 3 TRADE REG. REP. ¶ 19,918 (FTC Feb. 22, 1972) *rev'd*, No. 8778 (FTC, Mar. 13, 1973), in which the record exceeded 10,000 pages.

54 Rathbone, *supra* note 17, at 50; *see* United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963) (presumptive market share violation test). *See generally* Tribe, *Trial by Mathematics: Precision and Ritual in the Legal Process*, 84 HARV. L. REV. 1329 (1972) (exploring the use, overuse, and misleading effects of numerical analysis in trials).

55 *See* notes 17-22 and accompanying text *supra*.

56 Shepherd's study showed market share to be a very significant determinant of high profitability. Shepherd 30. But its practical usefulness may not match its abstract usefulness. *Cf.* KAYSEN & TURNER 101-02.

57 *See* P. ASCH, ECONOMIC THEORY AND THE ANTITRUST DILEMMA 178 (1970). Nevertheless, an effort to quantify will be made below. *See* text accompanying notes 345-77 *infra*.

58 The court in Crown Zellerbach Corp. v. FTC, 296 F.2d 800 (9th Cir. 1961), showed its general aversion to expanding the scope of economic issues when it rejected the suggestion of the Attorney General's National Committee To Study the Antitrust Laws that consideration be given to the possibilities for new entry in the industry of the defendant. *Id.* at 827.

Dean Bok expresses the view that the widening use of economic theory yields diminishing, even negative, returns and is of little predictive value. *See* Bok, *Section 7 of the Clayton Act and the Merging of Law and Economics*, 74 HARV. L. REV. 226, 349 (1960). Professors Kaysen and Turner, however, cautiously conclude that important economic issues are "susceptible to rational administrative or judicial determination." KAYSEN & TURNER 240-41.

59 Professor Low has catalogued the general importance attached to entry barriers by courts, government agencies, private litigants, and legal scholars. Low 515-19.

II

THE ECONOMICS OF BARRIER ANALYSIS

A. *Economies of Scale*

"Economies of scale" describes the decline in unit production and distribution costs occurring with the approach to optimal plant or firm size by the producer.[60] The larger the optimal plant size, the larger the market share necessary to justify its existence,[61] and the more awesome the entry barrier must be to the new entrant.[62] The established firm, having reached economies of scale, can discourage the entry of any new suboptimal producer by setting prices beneath his expected average costs, including reasonable profit.[63] The greater the economies, the less the established firm need drop its price from its profit-maximization position.

Entry may also be discouraged even if the entrant builds a plant large enough to achieve scale economies. The added product on the market may itself lead to price reductions[64] and under-utilization of capacity.[65] The prospective entrant would be discouraged, since he then would need to capture a greater absolute market share than anticipated.

The significance of economies of scale in barrier analysis has been a source of some disagreement among economists. One pioneer analyst, Bain, concluded that economies of scale are the source of "at least perceptible barriers to entry."[66] In all but five of the twenty examples from his 1956 study, the optimal plant size necessitated production of less than five percent of the market.[67] Also, his study showed that the cost of producing at less than maximum economies is generally insubstantial.[68] In a more recent work, Shepherd has demonstrated

60 BARRIERS 53.

61 CAVES 24-25. This analysis assumes a constant level of demand.

62 However, if demand is price-elastic, a new entrant, by lowering his entry price beneath that of existing competitors, can more quickly capture the market share needed to achieve scale economies since such share requirement will be reduced by the market expansion. Thus, this barrier can be dissipated, although the new entrant will sacrifice initial revenue in so doing.

63 P. SYLOS-LABINI, OLIGOPOLY AND TECHNICAL PROGRESS 57-60 (1962).

64 P. ASCH, *supra* note 57, at 162.

65 P. SYLOS-LABINI, *supra* note 63, at 43. Existing firms may not cut back production partly because their economies encourage full capacity and partly in order to compound the difficulties of the new entrant.

66 BAIN 280. In his 1968 review of his 1956 study, Bain concluded that average scale economies would allow pricing 2% to 4% above minimal average costs. *Id.* at 281.

67 BARRIERS 72-74.

68 *Id.* at 78-86. Bain's data is far from complete on this matter, but the findings he

that scale economies which relate to overall firm size do not contribute to higher profits.[69] In fact, he found them negatively correlated.[70] This suggests that diseconomies supervene to influence profitability,[71] and that such diseconomies develop at a sufficiently early level to have pervaded his sample. Therefore, scale economies must be reached at a relatively low level of production. Notwithstanding the general weakness of scale economies as an entry barrier, in industries which support only a few efficient producers their importance may be substantial.[72]

B. *Absolute Cost Advantages*

The ability of an established firm, regardless of size, to produce goods more cheaply per unit than a new entrant, creates cost advantages which, when transmitted to price, may deter new entry.[73] A firm may further have the ability to block new entry simply by possessing an element or process necessary to production which is unavailable to a possible entrant at any cost.[74]

Generally, an established firm's lower production costs reflect superior production techniques or the availability of the elements of production at lower prices than are available to a new entrant. Specifically, such advantages may be related to the possession of patents or trade secrets economizing the production process, or they may reflect the greater availability of certain resources.[75] For example, both management expertise[76] and research facilities[77] may be resources which the established firm possesses at lower cost or with more productivity

could muster do support this conclusion. Based on Bain's study Professor Caves concludes that none of the really high barriers are attributable to scale economies. CAVES 29.

69 Shepherd 35.

70 *Id.* Shepherd did not analyze scale economies per se, but rather the relation of firm size to profitability, appareutly under the assumption that the larger the firm, the more likely it will have reached and remained at scale economies. *Id.*

71 *See* SCHERER 217-18. Scherer traces the market share decline of several historic monopolists, due partly to ultimate diseconomies of production. *Id.*

72 *Cf.* KAYSEN & TURNER 78. Economies of scale may also extend to research, capital, and promotional costs. Tlie analysis here would apply to them as well. These barriers will be treated in other respects in the pages that follow. *See* notes 82-125 and accompanying text *infra.*

73 BARRIERS 144.

74 *Id.* at 145. By integrating vertically or utilizing product tie-ins, old firms may control so much of a resource that a new competitor (at the original level) finds that the cost of acquiring such resources in order to compete is prohibitive, while integrating or producing the tied resource to meet the competition head-on may raise prohibitively his entering capital requirements. *Id.* at 145-46. *See also* KAYSEN & TURNER 120-21, 157.

75 BARRIERS 144-45.

76 *Id.* at 148.

77 *See* Comanor, *Market Structure, Product Differentiation, and Industrial Research,* 81 Q.J. ECON. 639, 652-56 (1967).

than the new firm. Equally, the uniqueness of the work-product derived from management expertise and research facilities may discourage entry since it reduces the firm's operating costs.

An existing firm may also impede entry by holding patents on a product or a production process.[78] Without such patents, the new entrant may find it costly or impossible to imitate the process.[79] If the patent is vital, the holder can license it to the entrant, but even then the neophyte is competitively disadvantaged.[80] The aggressive competitor may build the barriers even higher by patenting every conceivable process or by accumulating patents to shield expiring patents or unpatented processes. The existing firm may also threaten or bring spurious or inconsequential infringement suits, effectively chilling the competitive use of different but related processes. The end result may be no entry or costly licensing.[81]

Corporate research has been shown to be an effective device for preventing entry.[82] In a recent study, Professor William S. Comanor observed that when research could only establish a low barrier, firms were hesitant to invest great sums for fear of imitation.[83] With high barriers, the research product could not be used to raise barriers anyway; hence there was no need to spend excessively. However, in between these extremes, when the industry could accommodate a varying expenditure for research and entry barriers were otherwise moderate, Comanor found that research had been used to impede entry.[84]

The unavailability or high cost of capital may discourage new entry or greatly increase the barriers to it. The largest and most established firms have access to liquid resources as well as to longer-term financing at preferential interest rates.[85] The new entrant may be dis-

78 *See* SCHERER 230.

79 Of course, to the extent that patent law requires some detailing of the invention on the public record, the value of a patent as an entry barrier is minimized.

80 If the patent reflects significant development and research costs, which the licensee never has to face, the competitive disadvantage of the license to him is somewhat less. It is further lessened by knowledge that the patent is temporary, lasting no longer than 17 years.

81 KAYSEN & TURNER 160-66. Akin to patent rights are other governmental grants of exclnsive rights, for example, offshore petroleum rights and licenses, and television broadcast licenses. *See* SCHERER 125. Also, legislation putatively designed for social purposes may actually bar entry. *See, e.g.*, Jadlow, *Competition and "Quality" in the Drug Industry: The 1962 Kefauver-Harris Drug Amendments as Barriers to Entry*, 5 ANTITRUST L. & ECON. REV., Winter 1971, at 103, 122. *See also* J. GOULDEN, THE SUPERLAWYERS 32-37 (1972) (regarding the act establishing the Civil Aeronautics Board). These governmentally-created barriers may be considerably more difficult to overcome than the patent right.

82 Comanor, *supra* note 77, at 656-57.

83 *Id.*

84 *Id.*

85 BARRIERS 146; KAYSEN & TURNER 116.

advantaged both by his lack of reputation in the financial community and by his need for larger sums (the cost of starting up). Capital simply may be unavailable in the amounts needed[86] or its cost may be too high to merit the risk.[87]

It is generally thought, however, that absolute cost advantages do not significantly bar entry; certainly they are less significant than economies of scale.[88] Patents can be skirted or licensed without frustrating entry.[89] Technological innovation, which may allow existing patent avoidance, has been demonstrated to be uniquely within the realm of the new entrant.[90] Even though resources can be temporarily controlled, discoveries of new productive materials frequently allow new entry.[91] Managerial skill and know-how may be barriers, but are considered slight and temporary;[92] moreover, their regulation may be particularly repugnant to deeper social policies.[93]

From his study, Bain was unable to conclude how or to what degree capital requirements affected entry.[94] Similarly, Professor George J. Stigler was unable to conclude that the status of capital markets showed anything about the likely success of a new or small entrant in securing a loan.[95] It is likely, however, that older, larger firms do fare better on the financial market, and are less troubled by capital requirements.[96]

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86 In Bain's study, only 3 of the 20 industries could be financed "locally," while 7 were thought to require in excess of $50 million to get off the ground. BARRIERS 156-59.

87 *See generally id.* at 146.

88 *See id.* at 155.

89 Some strategic patents, however, may cause insurmountable barriers. BAIN 282.

90 SCHERER 280, 376-77. Scherer notes a number of products, including the dial telephone and the electric typewriter, which evolved from new companies, unhampered by the physical and psychological commitments of the old. Older companies, however, in the face of upstart innovation, may fight back. Consider IBM's innovations in electronic computer technology in response to the significant entry of Control Data Corporation. *Id.* at 377. Also, if entry barriers are otherwise very high, innovation is less likely to occur. S. STURMEY, THE ECONOMIC DEVELOPMENT OF RADIO 277 (1958).

91 *See* G. STIGLER, THE THEORY OF PRICE 255 (1966). Oil discoveries in the 1920's for example, created unowned fresh resource supplies and the opportunity for their acquisition by then new entrants.

92 BARRIERS 148-49, 155; BAIN 282.

93 *See* note 51 *supra*.

94 BARRIERS 165.

95 G. STIGLER, *supra* note 91, at 223-25.

96 BARRIERS 146. This is not, *pro tanto*, a bar to entry, because new entrants in one industry are frequently old firms in another. Given their existing strength in the financial market, they should be at no great disadvantage compared to existing competitors in their new market in receiving loans. *Cf.* Osborne, *The Role of Entry in Oligopoly Theory*, 72 J. POL. ECON. 396, 399-400 (1964). *But see* Mansfield, *Entry, Gibrat's Law, Innovation, and the Growth of Firms*, 52 AM. ECON. REV. 1023 (1962). Professor Mansfield found new entry

C. *Product Differentiation*

If a firm is able to induce buyers to purchase its product for reasons unrelated to objective standards of quality and price, then it has created a product differentiation advantage allowing it to price at a level above its average costs, commensurate with the attractiveness of the differentiation.[97] When differences exist which buyers appraise and value objectively, no economically significant product differentiation can arise.[98] When differentiation exists, the barrier to the new entrant is measured by the sum of (*a*) the difference between his projected price charged and the profit-maximization price expected without differentiation and (*b*) the difference between his promotional costs and those promotional costs expected without differentiation.[99]

Product differentiation is created by firm and product reputation, proximity reliability, and plentitude of firm (or dealer) distribution and service, product design and style, and promotional (sales and advertising) expenditures.[100] Its strength as a viable barrier lies with the large number of purchasers who, for subjective reasons or through ignorance, become wedded to a specific product.[101]

Product differentiation, not surprisingly, occurs with greatest frequency in the consumer-goods sector.[102] This is where the least in-

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negatively correlated with the size of capital investment required. *Id.* at 1024-28. This may suggest that capital markets may be less relevant than the increasing hesitation to spend even available capital on an untested venture as it becomes more costly.

97 BARRIERS 116. *See also* BAIN 229-31. Product differentiation has also been characterized in terms of cross-elasticities. A low cross-elasticity of demand among competing products is characteristic of an industry with high product differentiation. Similarly, a low cross-elasticity of supply suggests that competing products within an industry are sufficiently nonduplicable so that buyer preferences cannot be readily changed, *i.e.*, product differentiation is effective. *See* Comanor & Wilson, *Advertising, Market Structure and Performance*, 49 REV. ECON. & STATS. 423, 424 (1967).

98 CAVES 20.

99 BARRIERS 116. *See also* P. ASCH, *supra* note 57, at 162. For example, if an oligopolist sells its boomerang for $1, with promotional costs of 10¢, and a new entrant, to attract purchasers, would have to charge 90¢ with promotional costs of 20¢, then the immediate cost of entry is 20¢ per unit. It is the prospective entrant's calculation of his ability to sustain that additional initial cost for a given duration which determines the likelihood of his entry. But it must be rare when such figures are meaningfully calculable *before* entry.

100 Comanor & Wilson, *supra* note 97, at 424. *See also* BAIN 459. For a more thorough discussion of advertising, see notes 109-25 and accompanying text *infra*.

101 CAVES 20-21.

102 BARRIERS 123-25. In Bain's sample only the tractor and typewriter industries showed high product differentiation in the producer-goods segment. Producers, generally more sophisticated and dealing with more homogeneous products, do not differentiate the way consumers do. Interestingly, tractors and typewriters can both be consumer products. *Id.* at 123-24.

formed, least cost-motivated buyers customarily "do their shopping." Consumers may consciously ignore pricing in purchasing decisions. The motivations for conspicuous consumption and gift buying often lead to a demand for higher, not lower prices, regardless of product quality.

Some goods are purchased so infrequently and are so complex that consumers lack the experience to evaluate product quality. Household appliances and automobiles are two examples of products of sufficiently complex construction and infrequent purchase such that considerable seller promotion is essential. In purchasing such items, consumers are left to rely on a vagne sense of reputation and quality promoted by the self-serving manufacturer (or his distributor).[103] Indeed, the inability of the consumer to evaluate quality objectively leads him to fix on stylistic and design differences,[104] giving rise to superficial quality appraisal. The refrigerator-freezer which dispenses ice cubes through the door will be credited with higher quality than the more durable competitive model, sans gimmick. The car with the sleekest lines will attract the attention of the average buyer over the car with the best engineering. Consumers are more likely, however, to evaluate according to quality and price when purchasing more frequently needed products such as food and clothing.[105]

Sellers can increase product differentiation and raise entry barriers by spending more money on promotion, by making more design and style variations without quality improvements, by making more frequent product changes, by proliferating more exclusive dealerships, and by raising the apparent level of customer service.[106] It is widely agreed that this ability to increase differentiation is frequently exercised and is a major deterrent to entry.[107] What is perhaps more telling about its force is that the *highest* barriers are commonly correlated with substantial product differentiation. In consumer-goods industries

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103 BAIN 282, 459.

104 *Id.* at 226.

105 *Id.* at 459. Of course, food and, especially, clothing may be purchased for reasons unrelated to utility. Promotion and design are sometimes more important than quality in creating consumer demand even for these commodities.

106 *Id.* at 233; *cf.* W. SHEPHERD, MARKET POWER AND ECONOMIC WELFARE 236 (1970). Shepherd details how annual style changes in the automobile industry have effectively foreclosed new entry there. *See also* 1 S. WHITNEY, *supra* note 41, at 478.

The presence of exclusive dealerships also boosts the cost of entry to potential competitors who are required to enter the market fully integrated for lack of a retail outlet. Such dealerships further broaden advertising avenues by standing with night lighting and linoleum as ubiquitous community reminders of the distant manufacturer. *See generally* Mueller, *supra* note 37, at 30-31, 34.

107 Caves states flatly, "[P]roduct differentiation plays the leading role [in explaining the] really high barriers." CAVES 28. *See also* BAIN 281.

particularly, the only true barrier to entry frequently is product differentiation.[108]

D. *Advertising*

Advertising, as a barrier to entry, combines elements of the other barriers discussed.[109] The use of advertising may involve significant economies of scale. The older, larger firms can send more messages and reach more people per dollar and per unit than can the newer and smaller firms.[110] Quantity discounts for large-scale advertising,[111] the spreading of services of advertising agencies among greater advertising output, and the need to create only once a widely-recognized image and reputation that may be re-used over time (and from product to product with minimal "upkeep" cost), all create such economies.[112]

The established advertiser also has cost advantages over the newcomer. The newcomer may have to borrow money to advertise, increasing his capital requirements. As difficult as start-up funds may be to acquire anyway, it may be even more difficult to finance an initial advertising campaign upon which the creditor cannot take a security interest.[113]

Further, the advertising costs incurred in getting consumers to switch from established products to those of the new entrant may be higher at all levels of production for the new entrant than for the existing firm.[114] As the new entrant starts up, it will incur high advertising costs just to break the buying habits and loyalties of its competitors' customers. As production increases and more buyers are sought, even more intensive advertising will be necessary. At this stage, the more lethargic or faithful buyers, hesitant to break old ties, must be bombarded with the new entrant's message in order to be persuaded to switch.[115]

108 CAVES 27-28. Caves correlates product differentiation directly to high concentration in some of those industries. CAVES 33-35. It is possible for a new entrant, already established in another industry, to surmount the entry barrier by utilizing its own expertise and by transferring its reputation to create differentiation for its new product. *See generally* BARRIERS 142; SCHERER 230; Osborne, *supra* note 99, at 399-400.

109 It also receives special treatment because it has generated considerable interest and debate recently. *See, e.g.*, Brozen, *No Scarlet Letters*, 52 BARRON'S, Feb. 28, 1972, at 7.

110 Turner 95; *cf.* L. WEISS, ECONOMICS AND AMERICAN INDUSTRY 342 (1961) (noting that in the 1950's Studebaker and American Motors spent more than twice as much per car on advertising than did General Motors and Ford).

111 Turner 95.

112 Comanor & Wilson, *supra* note 97, at 425-26; *cf.* BARRIERS 65; Bok, *supra* note 58, at 276. *Contra*, Telser, *Advertising and Competition*, 72 J. POL. ECON. 537, 556-58 (1964).

113 Comanor & Wilson, *supra* note 97, at 426.

114 Of course the existing firm may have had such expenses in the past.

115 *Id.* at 425. The classic "I'd rather fight than switch" cigarette commercial signifies

Advertising costs are thought most significant in the creation of product differentiation.[116] Bain has captured the flavor of advertising in relation to product differentiation:

> [T]he bulk of advertising is . . . primarily "persuasive" [not "informational"]. It is aimed at creating product preferences through generally phrased praises of the attributes of various outputs . . . or simply through the dinning into the potential buyer's mind an awareness of the product through endless repetition. Thus an important category of product differentiation is built primarily on a nonrational or emotional basis, through the efforts of the "adman."[117]

Professor Turner noted the ease with which advertising can become noninformational, creating "preferences going beyond the relative superiority of the product, resistant to anything but major countervailing promotional campaigns."[118] In his study, Bain also determined that advertising was used most extensively for products bereft of other means of differentiation, such as cigarettes, soap, and liquor.[119]

Other commentators disagree on the extent to which advertising is an entry barrier. Professors Comanor and Wilson concluded from their study that advertising can be a major barrier to entry, particularly in consumer-goods industries.[120] Professor Telser, in an earlier article, came to an opposite conclusion;[121] but as Comanor and Wilson point out, Telser's assumption that the degree of concentration is correlative to the strength of competition is inaccurate. It loses sight of other significant elements of market structure and power which can account for noncompetitiveness.[122] Advertising is as much a barrier as product differentiation itself, already characterized as significant.[123] Brozen's theory, which views advertising as a "means of entry,"[124] is also not compelling, despite the large following which the theory commands.[125]

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the consumer loyalty an established firm and its product enjoy. The older firm's cost advantage is not absolute, however, since the new firm will encounter reduced advertising costs when the desired number of buyers have switched over.

116 *Id.* at 423.

117 BAIN 227.

118 Turner 94.

119 BARRIERS 125.

120 Comanor & Wilson, *supra* note 97, at 425, 437.

121 Telser, *supra* note 112, at 556-58.

122 Comanor & Wilson, *supra* note 97, at 424.

123 It has been theorized that advertising is a result, not a cause, of product differentiation and, therefore, does not itself raise a barrier. BARRIERS 142-43. Indeed, consumers may thrive on the proliferation of advertising as an end unto itself. *See generally* Turner 94.

124 Brozen, *supra* note 109, at 10.

125 *Id.* Brozen totally ignores the matter of persuasive, as opposed to informational,

E. *Firm Size*

There exists the economically elusive notion that corporate bigness itself constitutes a barrier to entry. The very size of an existing firm or firms is said to discourage new entry. Insofar as it allows the achievement of scale economies, cost advantages, and product differentiation, corporate bigness is clearly a barrier.[126] However, bigness has been claimed to be an independent deterrent as well.[127] Large size gives a firm the leverage to price in a manner that discourages entry.[128] Its very existence may create a psychological shadow over an industry into which otherwise likely entrants will fear to tread.[129] In addition, a firm's size may have sufficient impact upon the financial markets to discourage them from serving the new entrant.[130] There is also some congressional support for the notion that bigness is a barrier to entry. During hearings on section 7 of the Clayton Act, Representative Celler observed that "[g]reat masses of economic power and monopoly stunt the growth of individual enterprise and kills [*sic*] individual ambition and individual dignity."[131]

Yet in Shepherd's recent study, firm size correlated negatively with profits.[132] He attributed this to the ineffeciencies of large scale which

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advertising with its coercive effects. *See generally* V. PACKARD, THE HIDDEN PERSUADERS (1957). Moreover, he does not discuss *excessive* advertising, the true barrier. His example of the eye glass market compares one state where advertising was allowed with another state where it was not, showing that in the former state eye glasses were cheaper. Brozen, *supra* note 109, at 10. However, the example does not measure the differences between *reasonable* and *excessive* advertising. He further argues that advertising will only sell the product the first time, after which the quality of the product itself will determine its continued use. *Id.* This analysis completely ignores the quantity of use to which an accepted product is put, as well as how advertising may persuade the consumer to buy the product more often. Even the products of monopolists have measurable cross-elasticities with other products, and they must promote continued use lest the public alter its habits to avoid the product entirely (*e.g.*, a cola to milk conversion).

Insofar as advertising weds a consumer to use, or overuse, of a product, it still is a barrier to entry to would-be competitors. *See* Turner 94. Advertising is a "means" of entry because it may be the only way for some firms to enter. But in advertising-intensive industries the stakes are high. Thus, it is a usable means of entry for only a few, but a barrier for the rest.

126 KAYSEN & TURNER 116. *See also* Bok, *supra* note 58, at 276.

127 *See, e.g.*, Edwards, *Conglomerate Bigness as a Source of Power*, in BUSINESS CONCENTRATION AND PRICE POLICY 331, 334-35 (1955).

128 Bok, *supra* note 58, at 348. Turner, however, concluded that such a pricing practice is not a necessary consequence of large size. Turner, *Conglomerate Mergers and § 7 of the Clayton Act*, 78 HARV. L. REV. 1313, 1340 (1965).

129 Mueller, *supra* note 2, at 127; *cf.* Bok, *supra* note 58, at 275.

130 Edwards, *supra* note 127, at 335-36.

131 *Hearings*, *supra* note 14, ser. 14, pt. 13, at 15 (statement of Representative Celler).

132 Shepherd 35.

frequently beset larger companies.[133] His finding suggests that bigness alone does not breed market power and perhaps, by extension, that bigness alone does not result in power to keep entrants out. The Federal Trade Commission's recent report on conglomerate merger performance supports this conclusion.[134] At least for the nine giant corporations evaluated, anticompetitive activity by virtue of size was not evidenced.[135] The Commission also found no support for the theory that predatory pricing, economies of scale, or advertising intensity increased absolutely after the acquisitions.[136]

These studies should make one hesitate to suggest that bigness per se is a significant barrier to entry. Some courts, however, have not been so hesitant as will be illustrated below.[137]

F. *Pricing*

Implicitly underlying the foregoing analysis are the roles which pricing decisions can play in allowing firms both to profit by entry barriers and to take advantage of such barriers to keep out new firms. It is usually thought that any entry barrier allows the firms in an industry to set higher prices and take higher profits than would be possible absent such barrier. However, prices may also be set lower than short-run profit-maximization principles would dictate in order

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133 *Id.* In a study of six huge conglomerates, the Subcommittee on Antitrust of the House Judiciary Committee found the post-acquisition profits of the acquired companies to be generally and substantially diminshed from their pre-acquisition status. STAFF OF THE SUBCOMM. ON ANTITRUST OF THE HOUSE COMM. ON THE JUDICIARY, 92D CONG., 1ST SESS., INVESTIGATION OF CONGLOMERATE CORPORATIONS 407-11 (1971). *See also* Mueller, *supra* note 2, at 99 (larger firms may be inferior to smaller firms in research and development).

134 FTC, REPORT ON CONGLOMERATE MERGER PERFORMANCE: AN EMPIRICAL ANALYSIS OF NINE CORPORATIONS (1972).

135 *Id.* at 199.

136 *Id.* at 66-68, 191, 195-96, 199. The report may provide only weak support for the general thrust of this section. First, it was based on surveys conducted only two or three years after the merger boom that brought these giant corporations into prominence. *Id.* at 12. Any elevation of barriers in specific industries might have required more time for the principal to filter its benefits down to the newly acquired companies. Second, not all big companies face the inherent weaknesses of conglomerates. Companies more unified in operation and more directed to one integral set of markets might better wield whatever powers their size allows on their competitors in any one such market. *See* notes 231-50 and accompanying text *infra*.

137 Firm size probably influences the design of many of the orders which grow out of antitrust proceedings. A big company, the benefactor of all the previously discussed means of barring competition, can be divided more efficiently than it could be enjoined from various business practices which are incident to its size. Compliance with ongoing orders is easily circumvented because compliance matters have a relatively low priority in the federal antitrust enforcement budget. Divestment, therefore, frequently provides a more expedient course, though perhaps one less economically defensible.

to discourage the advent of new competition.[138] Generally, entry into an industry is deterred when more profitable investment could be made elsewhere. Theoretically, by pricing to reduce profits, would-be entrants will be thrown off the track and invest in some other industry.[139]

In theory, only intermediate barriers could induce special pricing to prevent new entry.[140] Industries with impregnable barriers, such as mainstream protective patents, can price monopolistically without attracting new entry.[141] Industries with low barriers will be driven down to competitive pricing because the barriers cannot retard the proliferation of new competitors. Pricing above competitive levels with inexpensive or costless entry would alert would-be entrants to the above-normal profits which the industry apparently offers, and consequent entry would force down prices accordingly.[142]

An industry may take advantage of its moderate entry barriers by practicing limit pricing. Limit pricing is simply setting product prices at a level that barely discourages outsiders from entering.[143] The gap between the unit cost and the limit price is just less than the entering cost, including reasonable profit, attributable to the product.[144] Therefore, the potential entrant is deterred by his inability to secure a normal return upon entry, while the existing firm still profits (although it may earn less).[145] Professor Frederic M. Scherer suggests that limit pricing be linked with "irrational" pricing to describe the full panoply of entry-eliminating price mechanisms.[146] Irrational pricing should be threatened by the existing firm when large-scale efficient entry appears imminent. Such entry would be of sufficiently low cost so as not to be deterred by any rational industry limit price.[147] The irrational price,

138 Osborne, *supra* note 96, at 396.

139 One commentator states that prospective entrants are swayed more by present profits than by potential profits. G. STIGLER, *supra* note 91, at 227. Thus, a manufacturer's ability to hold back profits can deter entry effectively by misleading possible entrants.

140 BAIN 275.

141 This statement assumes the absence of intra-industry competition.

142 BARRIERS 34-41.

143 Mueller characterizes this as the "entry-forestalling" price. *See* Mueller, *supra* note 2, at 125.

144 For example, if a likely entrant calculates that his costs (with reasonable return) will be $1.00 per unit, the existing firm can prevent his entry by pricing its product at $.99, a price which the likely entrant must now meet if he chooses to enter. The knowledge that the venture will yield a smaller return than expected will theoretically divert the frustrated nonentrant into a more profitable alternative investment.

145 *See generally* SCHERER 219-24. Scherer expands on the foregoing analysis in a manner well beyond the scope of this paper.

146 *Id.* at 229.

147 An irrational price policy would allow firms to set a higher limit price, discouraging only the smallest, least efficient firms from entering. *Id.*

therefore, could be even below manufacturers' average costs. If effectuated, it leads to the kind of price war that founders the newly-launched entrant before it even goes to sea.[148] It is hoped that the threat of such pricing will deter entry before the actual pricing is employed.

The difficulties with limit pricing, which would seem to confine its relevance to theory, largely center on the legal risks and uncertainties involved in its use. First, no *one* firm in an industry could limit price to bar entry. The entire industry would be required to adopt such a policy for meaningful obstruction.[149] In an oligopolistic industry, such informal, unconscious price coordination may be possible within the law.[150] But, the likelihood of illegal collusion seems manifest in oligopolies and even greater in less concentrated industries.[151] A simple drop in price by an industry leader would have to be followed by his competitors, whatever the reason for the drop. But that leader's charging a lower price than the market would otherwise bear, just to stave off an unseen enemy, then raising it again, would be unwise in the absence of agreement. A series of such acts, irrational if done singly, but rational if done by all, may demonstrate collusion and violate the Sherman Act.[152]

The uncertainties arise because the industry may have difficulties in determining the cost of entry. One firm on the edge of the market may be able to accomplish entry more cheaply than another, or at least think it can. To bar entry completely, the industry must determine the cost of entry of the firm most likely to enter. Gathering such data is difficult, if not impossible. Therefore, the limit price may be little more than conjecture and only haphazardly effective.[153] Moreover, even if discovered and reasonably set, the limit price would not discourage entry by the most irrational firms, nor would it affect the actions of firms able to perceive and weather the mechanism in use. Such firms may find it advantageous to attempt to overcome initial

148 *Id.* at 228-29. Scherer notes that in periods of expanding demand, the threat of irrational pricing cannot deter otherwise interested large-scale entrants. *Id.* at 229.

149 BARRIERS 27.

150 Section 1 of the Sherman Act would prevent outright price fixing. *See* United States v. Socony Vacuum Oil Co., 310 U.S. 150 (1940).

151 Berger & Peterson, *Conglomerate Mergers and Criteria for Defining Potential Entrants*, 15 ANTITRUST BULL. 489, 493 (1970).

152 The Supreme Court has held that prices cannot be fixed either minimally or maximally. Albrecht v. Herald Co., 390 U.S. 145 (1968); Kiefer-Stewart Co. v. Joseph Seagrams & Sons, Inc., 340 U.S. 211 (1951).

153 Berger & Peterson, *supra* note 151, at 493; *cf.* Hines, *Effectiveness of Entry by Already Established Firms*, 71 Q.J. ECON. 132, 149 (1957).

barriers in order to realize later increased profits if the limit price is abandoned, or to reap the benefits of being in a perpetually insulated industry if the limit price is maintained.

Despite the risks of limit pricing, it *is* used. One pricing study showed that General Foods held down prices because higher prices would have accelerated the development of future competition.[154] In a recent work, Scherer cites the "big three" cigarette makers of the early 1930's who cut back prices to stem the penetration of cheap cigarette manufacturers into the market.[155] He also notes that the continued dominance of General Motors and Alcoa is due partly to their refusal to take high short-run profits.[156] His conclusion is that price restraint has more to do with minimizing entry than do other economic entry barriers.[157] The inherent uncertainties in using this device, however, are more likely to reduce its significance as a barrier. Indeed, if limit pricing leads to lower prices than expected, it results in an immediate benefit to consumers. The offsetting long-range cost to consumers is the deterrence of new entries, which limit pricing may, in any event, fail to accomplish.[158]

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154 A. KAPLAN, J. DIRLAM & R. LANZILLOTTI, PRICING IN BIG BUSINESS 216 (1958).

155 SCHERER 21.

156 *Id.* This recent announcement in a trade publication demonstrates the contemporary use of limit pricing in the pharmaceuticals industry:

> In anticipation of patent expiration, SK & F made price reductions on Thorazine obviously based on the marketing principle that cutting the dollar margin will discourage efforts by other pharmaceutical mfrs. [*sic*] to establish a competing brand-name product by shrinking the amount of money available for a strong, new promotional effort.

F.D.C. REPORTS, March 19, 1973, at 6. Scherer could not have stated a better classic definition of limit pricing than that which was produced by actual practice here.

157 SCHERER 232.

158 Osborne, *supra* note 96, at 402. Mueller has stated:

> [T]he . . . probable result [of limit pricing] is that the established firms will pick a conservative figure well below the danger zone, thus turning this element of uncertainty in estimating barrier heights to the further advantage of the consuming public. The net result . . . is that the established firms in even the most concentrated sectors may . . . *behave as though* they were . . . much more competitively structured . . . .

Mueller, *supra* note 2, at 125. Of course, an industry may distract would-be entrants as much by raising costs as by reducing price. Recognition of this approach to deterrence is not new. In 1776, Adam Smith wrote:

> When by an increase in the effectual demand, the market price of some particular commodity happens to rise a good deal above the natural price, those who employ their stocks in supplying that market are generally careful to conceal this change. If it was commonly known, their great profit would tempt so many new rivals to employ their stocks in the same way, that, the effectual demand being fully supplied, the market price would soon be reduced to the natural price, and perhaps for some time even below it.

A. SMITH, THE WEALTH OF NATIONS 60 (Modern Library ed. 1937).

III

BARRIER THEORY IN LAW

A. *Antitrust Litigation*

Antitrust cases are frequently resolved on their facts with little consideration given to precedent or to an ordered handling of economic data.[159] The history of judicial and administrative construction of entry barriers fits easily into this nonpattern. Thus, the criteria so neatly laid out by economists have been rarely followed.[160]

Generally, the courts have not placed great reliance on the actual incidence of entry prior to the suit. For example, in *American Crystal Sugar Co. v. Cuban-American Sugar Co.*,[161] battle lines were drawn around the issue of previous entry into the sugar industry. The Second Circuit gave little solace to the defendant even though it found that eight firms had entered in the thirty years preceding the suit.[162] Rather, the court emphasized that the diligence demonstrated by defense counsel in producing the eight entrants was consistent with the conclusion that barriers were high and the merger should be prohibited.[163] The court relied primarily on other grounds in reaching its decision,[164] but its cavalier treatment of the entry issue, never considering the ramifications of such entry, is notable.

Record of entry was used to undermine the Justice Department's case in *United States v. National Steel Corp.*[165] The court noted that between 1957 and 1959, the number of companies doing business in the prefabricated building industry had more than doubled—going

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159 *Cf.* FTC v. Procter & Gamble Co., 386 U.S. 568, 582 (1967) (Harlan, J., concurring). In a recent work, Armentano levelled a broadside attack on antitrust law in general. His view is that the precedents are chaotic only because they are, so to speak, marching to the beat of an indifferent drum, *i.e.*, to a general economic theory underlying present antitrust law enforcement which is empirically unsuccessful at improving competition. *See* D. ARMENTANO, THE MYTHS OF ANTITRUST 273-74 (1972).

160 Low found no absolute correlation between the measured height of entry barriers (from existing studies) and the results of cases involving those measured industries. *See* Low 524.

161 259 F.2d 524 (2d Cir. 1958). In this case, a cane sugar company attempted to acquire stock in plaintiff beet sugar processor, allegedly with an eye toward gaining actual control of the firm.

162 *Id.* at 530.

163 *Id.* at 530-31.

164 The court accepted the lower court's finding based upon price rigidity, an unnatural (legislatively induced) incentive toward acquisition by existing competitors, and the general "competitive situation of the industry." *Id.* at 527-28.

165 251 F. Supp. 693 (S.D. Tex. 1965). The action was brought under § 7 of the Clayton Act.

from 70 to 144.[166] This factor accounted for the defendant's victory as much as any in that case, elevating the entry issue to a rare high place in court considerations.

More often, the absence of entry is noted and the federal court or Federal Trade Commission simply concludes that entry barriers must, therefore, be too high.[167] Courts rarely look into the reasons underlying such nonentry.[168] In fact, one commentator has stated that not a single case using the history of entry "test has led to a clear result."[169]

The courts and the Commission do on occasion look into the conditions that account for high barriers. Economies of scale, however, have rarely been considered, as such, in determining whether barriers were set too high for outsiders. In *FTC v. Procter & Gamble Co.*,[170] the Supreme Court decided that Procter & Gamble's ability to spread its large advertising outlay over its whole range of products (reducing the per unit cost), as well as its ability to get quantity discounts, created entry-barring economies undesirable to impose on the liquid bleach industry.[171] The Court further said that an otherwise illegal merger could not be justified by the greater economies possibly evolving out of it.[172] Even this handling of economies was tied to advertising, a fairly simple activity to measure.

A more traditional treatment of scale economies was seen in *Brillo Manufacturing Co.*[173] There, the Commission noted that the high cost of the necessary steel wool spinning machine made new entrants inefficient, since they could not reach the required scale of production to exploit the machine fully.[174] The small size of the steel wool industry made the economies factor all the more acute, since only a small portion of the market could be captured after Brillo and

166 *Id.* at 698.

167 *See, e.g.*, Scott Paper Co. v. FTC, 57 F.T.C. 1415, 1438 (1960), *rev'd on other grounds*, 301 F.2d 579 (3d Cir. 1962), *adhered to on remand*, [1963-1965 Transfer Binder] TRADE REG. REP. ¶ 16,706 (FTC 1963).

168 *See* Low 525-26. A recent Commission case did use the paucity of recent entry (only 1 in the past 10 years) as a starting point in considering other entry barriers. *See* Papercraft Corp., 3 TRADE REG. REP. ¶ 19,725, at 21,765 (FTC 1971), *aff'd in part, modified in part*, Civil No. 71-1681 (7th Cir., Jan. 25, 1973). The lone entrant, a subsidiary of a large corporation, tacitly demonstrated the finding that considerable cost advantages existed as a barrier in the subject industry. *Id.* at 21,770-71.

169 Low 529.

170 386 U.S. 568 (1967).

171 *Id.* at 573. It is far from settled that such economies did exist. *See generally* Peterman, *The Clorox Case and the Television Rate Structures*, 11 J.L. & ECON. 321 (1968).

172 386 U.S. at 580.

173 [1963-1965 Transfer Binder] TRADE REG. REP. ¶ 16,543 (FTC 1963).

174 *Id.* at 21,467, 21,471.

S.O.S. took their shares.[175] That such a small industry generated unique economies problems substantiates the notion that scale problems do not normally beset larger industries (or firms with large market shares in smaller industries).[176]

A recent Federal Trade Commission decision, however, appears to represent an exception to this general view. In *Kennecott Copper Corp.*,[177] the respondent merged with the leading coal producer, Peabody, in a large and increasingly concentrated industry. The Commission implied, apart from concentration, that rising technological efficiencies, transportation economies, and customer requirements all made small mines incapable of competing.[178] Had Kennecott entered the coal market in a manner not involving acquisition of the industry leader, it presumably would have had the resources to generate a plant of sufficient size to benefit from scale economies, making its loss as an independent potential entrant particularly costly.[179]

What is troubling about the Commission's treatment of scale economies in *Kennecott* is that the reader is left the task of ascertaining how economies are relevant to the decision. The Commission merely noted that barriers were already high and were increasing.[180] If, however, the acquisition would have promoted more rapid technical development with concomitant higher scale economies, then it is not

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175 *Id.* at 21,471.

176 *See* note 72 and accompanying text *supra*. In Foremost Dairies, Inc., 60 F.T.C. 944 (1962), the Commission ordered Foremost to divest itself of 10 previous dairy acquisitions, in part because new technology created great economies of scale. Recognizing that small dairies could no longer establish themselves and compete, the Commission moved to check the elimination of existing local dairies which had the ability to expand into other markets and to take advantage of the full economies of the industry, in direct competition with Foremost. *Id.* at 1088-89. Despite the large size of some dairy companies and the industry as a whole, the purifying, bottling, and distributing processes are inherently local, and there is competition on that level as well. Therefore, at least in terms of the functional geographic markets involved, the dairy industry might be viewed as a small industry to comport with the above opinion.

177 3 TRADE REG. REP. ¶ 19,619 (FTC 1971).

178 *Id.* at 21,667. The onset of more productive and advanced equipment, requiring larger mines to be fully exploited, raised production scale economies. Transportation scale economies were achieved by using longer, fuller trains. The increased energy needs of electric ntilities could only be accommodated by huge coal shipments. *Id.* Although it is technically inaccurate to characterize a high customer requirement as an economy of scale, nevertheless, this fact meant that only large producers could serve a substantial share of the market.

179 Kennecott had the resources to expand a smaller company, allowing such company sales of $100 million to $200 million per year—probably above the level of fully efficient production and distribution. *Id.* at 21,670.

180 *Id.* at 21,667.

obvious that the merger would have been undesirable. It is a fairer assumption that the Commission intended the brief economies discussion to underscore the value of Kennecott as a potential entrant. Barrier theory can be integrated with other analytical theories and used to resolve antitrust cases more clearly than the *Kennecott* decision would suggest.

The cases often reflect a more careful consideration of the absolute cost advantages that create entry barriers. In both *Hartford-Empire Co. v. United States*[181] and *United States v. United Shoe Machinery Corp.*,[182] patents were accumulated in order to blanket production processes and discourage future entry. In *Hartford-Empire*, several defendant glass-makers conspired to prevent the licensing of their combined patents to any manufacturer outside their group.[183] This was found to suppress future competition in the glass making industry.[184] Although the court did not label this scheme as a cost-advantage barrier, the clear purpose of the conspiracy was to maximize the leverage of the conspirators' cost advantages in blocking future entry.

In *United Shoe*, the defendant carried on a policy of accumulating patents and inventions, some of which were then unnecessary to its production, in order to "la[y] the ghost of some potential competition."[185] Judge Wyzanski observed that patent licensing would have been less restrictive and concluded that the only added benefit of purchasing patents was in blocking future competition.[186] *United Shoe* is one of the few cases that has precisely considered the various barrier problems involved. The thoroughness of the opinion may be attributable to the full-time economist who served under the judge during the period of the litigation.[187]

In *United Shoe*, Judge Wyzanski rejected the government's allegation that United conducted its research in a way which discouraged entry.[188] In contrast, the FTC, in *Union Carbide Corp.*,[189] noted that

181 323 U.S. 386 (1945).

182 110 F. Supp. 295 (D. Mass. 1953).

183 323 U.S. at 386.

184 *Id.* at 400, 407.

185 110 F. Supp. at 312.

186 *Id.* at 333.

187 Noted economist, Professor Carl Kaysen, was appointed by Judge Wyzanski to compile and analyze the economic data relating to the case. For Kaysen's account of that experience see C. KAYSEN, UNITED STATES V. UNITED SHOE MACHINERY CORPORATION; AN ECONOMIC ANALYSIS OF AN ANTITRUST CASE (1956).

188 110 F. Supp. at 332.

189 59 F.T.C. 614 (1961).

the nature of the polyethylene resin manufacturing industry necessitated substantial research outlays in order to penetrate the market and continued high outlays in order to succeed.[190]

Courts have also recognized that entry-limiting quotas and regulations may create barriers giving insiders clear advantages over outsiders. In *American Crystal Sugar Co. v. Cuban-American Sugar Co.*,[191] after looking at past entry, the court remarked that the sugar quota imposed by the National Sugar Act made the sugar industry "peculiarly inhospitable to incursions from outside entrepreneurs."[192] In *United States v. Phillipsburg National Bank & Trust Co.*,[193] the Supreme Court seemed to admit that the barriers to entry in New Jersey banking were low.[194] The Court nevertheless concluded that this factor did not offset other likely anticompetitive effects of the proposed merger, since New Jersey law impaired competitive banking, and no application had been made for entry through the proper channels.[195] The clog on the freedom of entry created by the state, even if just a formality, was thought, *pro tanto*, to raise the barrier.[196] Court handling of the entry issue in *Phillipsburg* highlights the cursory and inadequate treatment frequently afforded barrier issues in order for the Court to reach a conclusion not inconsistent with other more trusted, but not necessarily more reliable, proof.[197]

Cases which note high capital requirements as a barrier to entry are more frequent. Perhaps the courts' weakness for numbers accounts for this reliance. In *Union Carbide*, the FTC began its explication of the entry difficulties by noting that it took a minimum expenditure of $9 million to build an efficient plant.[198] The FTC treated the barrier issues as pre-eminent in that case.[199] In another FTC case, *United States Steel Corp. v. FTC*,[200] the Sixth Circuit endorsed the Commission's findings that the most recent entrant invested $64 million to gain access to the cement market and that a minimum $3 million to $5 million was needed to start up.[201]

190 *Id.* at 652.

191 259 F.2d 524 (2d Cir. 1958).

192 *Id.* at 530.

193 399 U.S. 350 (1970).

194 *Id.* at 368.

195 *Id.* at 368-69.

196 *Id.* at 369. The Court reached this conclusion by gently skirting a lower court decision, cited therein, which described how easily the barrier could be overcome.

197 *Cf.* Low 524.

198 59 F.T.C. at 652.

199 *Id.*

200 426 F.2d 592 (6th Cir. 1970).

201 *Id.* at 604-05.

In *The Stanley Works*,[202] the respondent calculated that it would require a $600,000 investment to expand into the subject market.[203] The Commission implied that this was a meaningful entry barrier.[204] But the figure, if convincing, is so only because of its "shock" value since no analytical effort is made to justify it as a barrier.[205] Indeed, one is inclined to view the requirement not as a barrier at all since the alternative entry route chosen, by merger, cost respondent some $32 million![206]

Only one case can be found in which low capital requirements or the absence of cost advantages were mentioned as evidence of low entry barriers.[207] Clearly, these facets of barrier theory have been used almost exclusively to buttress proof of violation.

The barrier of product differentiation was fulsomely treated in *A.G. Spalding & Bros. v. FTC*,[208] where the court concluded that insurmountable barriers would be created by the projected market power of a Spalding-Rawlings merger.[209] The ways in which Spalding effectively differentiated its baseball products from its competitors' products were detailed. Sales to the major leagues, providing the basis for extensive advertising promotions, the endorsements of star performers, and the establishment of trade-name identification all were intended to wed the consumer to the product.[210] The court did not discuss any of the ways in which Spalding created real or apparent differences in the product, but the impact of Spalding's activities created the same effect in the minds of buyers as could physical product differentiation.

In *The Stanley Works*,[211] the Commission used the product differentiation advantage of an acquired company's product as one reason to void the merger between the company and Stanley.[212] The product, cabinet hardware, purchased primarily by builders, would seem difficult to differentiate artifically.[213] Yet, industry members apparently did so

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202 3 TRADE REG. REP. ¶ 19,646 (FTC 1971).

203 *Id.* at 21,698.

204 *Id.*

205 Thus the opinion does not include a discussion of the unavailability of capital or the inability of Stanley or other potential competitors to incur the specific expenses.

206 3 TRADE REG. REP. at 21,690.

207 Beatrice Foods Co., 3 TRADE REG. REP. ¶ 20,121 (FTC Sept. 28, 1972). *See* note 305 and accompanying text *infra*.

208 301 F.2d 585 (3d Cir. 1962).

209 *Id.* at 620.

210 *Id.* at 618-20, 626.

211 3 TRADE REG. REP. ¶ 19,646 (FTC 1971).

212 *Id.* at 21,698-99.

213 Of course, the irrationality of consumers, which provides the opportunity for differentiation, could filter down to the wholesaler level which must cater to these whims.

by achieving frequent style turnovers and wide style variety.[214] By also providing regular delivery of their products Stanley no doubt further habituated customers to its product for reasons unrelated to price.[215] *Stanley* is the only case which utilized the presence of product differentiation (excluding promotions) to prove antitrust violations, albeit in conjunction with several other barriers. One wonders whether the excessive practice of differentiation alone might not be presently unlawful, notwithstanding that economic analysis indicates it should be.[216]

The courts have been less reluctant to consider advertising activities which create product differentiation or other impenetrable barriers. In *Spalding*, the court noted the "substantial" advertising expenditures both merger participants made in order to build up consumer product acceptance.[217] These expenditures, which other industry leaders also made, were thought to "loom large" in contributing to the stifling of entry into the industry.[218] Similar sentiments were expressed by the Commission in *The Stanley Works*.[219] Despite the lack of direct consumer appeal of the product, substantial amounts of advertising were placed in trade publications, thus contributing to a siguificant product differentiation barrier.[220]

However, the facile characterization of advertising by the Commission raises two questions. First, Stanley spent between $50,000 and $60,000 to advertise and promote the introduction of a new product.[221] Another $100,000 would have been required to promote the products Stanley would have independently introduced had the merger never occurred.[222] While these may appear to be substantial sums, they would

214 3 TRADE REG. REP. at 21,699. The Commission concluded that a "staff of designers" would be required to keep up with competitors' style changes. *Id.*

215 *Id.* The Commission noted, but rejected as a significant barrier, the need to obtain "adequate channels of distribution." *Id.*

216 *See* notes 107-08 and accompanying text *supra*. *But see* Amplex of Md., Inc. v. Outboard Marine Corp., 380 F.2d 112 (4th Cir. 1967), *cert. denied*, 389 U.S. 1036 (1968). There, Amplex sought withdrawal of its boat motor franchise because Outboard also carried the line of a competitor. Product differentiation was demonstrated by the price disparity between Outboard's trade-name products and the identical product made under an unadvertised name for a major chain purchaser. *See* Petitioner's Brief for Certiorari at 11-12, Amplex of Md., Inc. v. Outboard Marine Corp., 389 U.S. 1036 (1968). The appeal was dismissed because § 3 of the Clayton Act, requiring an executed lease, sale, or contract containing the restrictive condition, was not met. 380 F.2d at 116. The court of appeals did not even mention the flourishing product differentiation of Outboard in reaching its decision.

217 301 F.2d at 619.

218 *Id.* at 620.

219 3 TRADE REG. REP. ¶ 19,646 (FTC 1971).

220 *Id.* at 21,698.

221 *Id.*

222 *Id.*

only have been one-time expenditures. Thus, although such sums would have been devoted to promotion, they more aptly are viewed as part of the costs, that is, capital requirements, of entry. In this light, it is doubtful whether the barrier was as substantial as claimed.[223]

Second, the annual expenditure of some $70,000 in "hardware promotions" was itself regarded as contributing to high entry barriers.[224] However, Stanley is a multimillion dollar corporation, whose advertising budget is likely a small percentage of its total sales[225] and, therefore, a reasonable expense, not a barrier. Further, blind categorization of such promotional outlays as barrier raising loses sight of the *type* of advertising purchased. Even the strongest advocate of advertising as a barrier would be hesitant to label as barriers all advertising outlays. It is important to know how much of the $70,000 was spent on "persuasive" advertising, devoid of logic-inducing substance. Here, the use of trade publication advertising strongly suggests that the promotion may have been more informational.[226] If such advertising did not emotionally bind the user to the product, then manufacturers would not have found it difficult to attract users by rationally advertising their product's virtues. Hence, absent classification of the *kind* of advertising, it cannot fairly be concluded that Stanley's promotional outlays raised entry barriers.

The role of advertising as an entry barrier was elevated to a dominant status in *FTC v. Procter & Gamble Co.*[227] The Supreme Court first recoiled at the fact that Procter & Gamble allocated some $127 million per year to advertising and promotion, compared to the $5.4 million spent by Clorox.[228] Tacitly underlying this juxtaposition of figures was the assumption that Procter & Gamble would spend more than Clorox did on its liquid bleach promotion after the acquisition. Mr. Justice Douglas went on to point out the other barrier-creating advantages of Procter & Gamble's large outlay. Large volume media

223 It is assumed that a capital requirement must be substantially higher than a continuing advertising expense to maintain a comparable barrier. One of the weaknesses of any such assumption is that precise measurement criteria have never been laid down, making strict comparison difficult. *See* notes 345-77 and accompanying text *infra*.

224 3 TRADE REG. REP. at 21,698.

225 Stanley's 1971 sales were $300 million, most of which apparently came from hardware products. 1972 MOODY'S INDUSTRIAL MANNUAL 3011-12. If it be assumed that advertising as a barrier is measured by the percentage of sales revenues expended for advertising, then it would be important to know this percentage. While that information was not disclosed in *Stanley*, the percentage was probably quite small.

226 It is difficult to imagine a building contractor being persuaded to buy a Stanley product because a pretty girl was shown using it in an advertisement.

227 386 U.S. 568 (1967).

228 *Id.* at 572-73.

discounts, lower per product expenses for the printing and mailing of promotional material, and greater flexibility in network television advertising were all thought to benefit the respondent in ways apparently unavailable to a one-product firm or to new entrants.[229] Its large advertising budget was also thought to give Procter & Gamble an ability, unpossessed by Clorox alone, to drive out new competition.[230] Query whether the Court's attack bears more relevance to Procter's overall operation than to this specific acquisition. The Court did not present findings on the advertising disadvantages suffered specifically by Clorox —a seemingly logical inquiry to make if one is interested in the competitive changes an acquisition is likely to bring.

Courts have been far more concerned than economists with the importance of bigness per se as a barrier to entry.[231] This concern pervades the *Procter & Gamble* opinion. After cataloguing the advantages over others which Procter's size engendered, the Court concluded that "[A] new entrant would be much more reluctant to face the giant Procter than it would have been to face the smaller Clorox."[232] Mr. Justice Harlan, concurring, railed at the court for failing to set standards for determining whether the size of Procter in the bleach industry would, in fact, be anticompetitive.[233] His opinion certainly reflected the economists' hesitancy to label bigness blindly as a barrier to entry.

Two years earlier in *FTC v. Consolidated Foods Corp.*,[234] a fact situation not unlike that in *Procter & Gamble,* the Supreme Court concluded that Consolidated's acquisition of Gentry would discourage new entry in the dehydrated onion industry.[235] The Court juxtaposed the smallness of Gentry and the industry as a whole, with the bigness of Consolidated to reach its conclusion.[236]

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229 *Id.* at 572-73, 579.

230 *Id.* at 573, 579. The opinion has been criticized on the ground that the supposed advertising advantages the Court recites are no greater for Procter than they were for Clorox and they do not, therefore, create higher barriers. *See* Peterman, *supra* note 171, at 396.

Mr. Justice Harlan concluded generally that no advertising efficiencies were proven and noted, rather academically that advertising is not always anticompetitive. 386 U.S. at 603-04 (Harlan, J., concurring). Even if the evidence is weak, the holding still stands for the proposition that if the advertising advantages did exist, they would account for high entry barriers.

231 *See generally* Day, *Conglomerate Mergers and "The Curse of Bigness,"* 42 N.C.L. REV. 511 (1964).

232 FTC v. Procter & Gamble, 386 U.S. 568, 579 (1967).

233 *Id.* at 589.

234 380 U.S. 592 (1965).

235 *Id.* at 601.

236 *Id.* at 600.

The Sixth Circuit refused to allow United States Steel, New York's largest cement seller, to integrate vertically by acquiring New York's largest concrete producer, because of the likelihood that United States Steel would extend all the competitively debilitating consequences of its bigness into the concrete market and enhance its power in its own market as well.[237] Apart from foreclosing markets to would-be entrants, the integrated United States Steel would have possessed the deeper pocket and the enhanced pricing leverage (by having a permanent buyer for its products), which would have discouraged most new entry. Successful entry thereafter would have required the same integration that United States Steel would have attained. The psychological apprehension that smaller rivals would have felt in competing against the large, integrated firm was also mentioned by the court as a factor inhibiting entry.[238]

Similarly, United Shoe's usurpation of the second-hand market for its machines (by requiring leases and forbidding outright customer purchase) and its control of the repair market made its domination of the shoe machinery market ever greater. The court, with an eye to eviscerating this bigness, required United to begin selling, rather than leasing, its machines.[239] Implicit in its findings was the idea that the immensity of United Shoe within the industry gave it the power to execute its plans and deter entry. In both *United States Steel* and *United Shoe* the courts leaned heavily on all the unfavorable aspects of vertical integration, not just the entry barring one. Both courts, however, specifically showed an aversion to the size of the parties and emphasized the effects of the anticompetitive practices on likely smaller entrants.

At the Commission level, the FTC has used the bigness issue quite creatively. In *Brillo Manufacturing Co.*,[240] the Commission noted the *smallness* of the steel wool industry and Brillo's dominance in the field which made entry unattractive.[241] The steel wool industry was incredibly concentrated, with the top two firms accounting for 88 percent of the market.[242] New firms could never obtain sufficient market size to become profitable.[243] But the Commission prohibited the proposed

237 United States Steel Corp. v. FTC, 426 F.2d 592, 599, 603-05 (6th Cir. 1970).

238 *Id.* at 605.

239 *See* United States v. United Shoe Mach. Corp., 110 F. Supp. 295, 325, 340, 343 (D. Mass. 1953).

240 [1963-1965 Transfer Binder] TRADE REG. REP. ¶ 16,543 (FTC 1963).

241 *Id.* at 21,471.

242 *Id.* at 21,469-70.

243 *Id.* at 21,471.

merger by going beyond this showing of market power to detail the relative bigness of Brillo in the Lilliputian steel wool industry.[244]

In *Freuhauf Trailer Co.*,[245] the Commission rebutted the assertion that 104 new entrants in the truck trailer industry made Freuhauf's combination with two other companies defensible, by noting that none of those entrants were big enough to service the large accounts which the combination could service.[246] There were only eight large-account sellers prior to Freuhauf's action, with Freuhauf the largest.[247] Also, the 104 new entrants together accounted for only 4.6 percent of the market.[248] The Commission rejected the theory that any of those 104 firms could ever be as competitive as the two firms assimilated by Freuhauf.[249] Since the older firms offered a breadth of products significantly different from those of the newer companies, the Commission could have dispensed with the recent entrants more easily by framing the relevant product line to exclude them. There was no evidence that the newer entrants competed in the market of the larger firms. By their demands, the large, multi-need, bulk purchasers created a viable submarket in which only eight firms ever competed. The FTC, in fact, noted that historically the small firms had never competed with the large firms.[250]

Only in *United Shoe* did the court deal with evidence of limit-type pricing.[251] The court did not relate limit pricing to barring new entrants, but rather to barring old competitors from expanding production into areas which United Shoe dominated.[252] Such pricing occurred only when United felt threatened by the imminence of competition in the area.[253] The court remarked that the traditional formula for setting prices generally was sufficiently crude to accommodate a *sub rosa* limit scheme, and that prices were, in fact, cut below the monopoly level which United could otherwise impose when the need was felt.[254] At times, United mistakenly priced even below its out-of-pocket expenses[255]—an extreme, if theoretically shabby, example of limit pricing.

244 *Id.* at 21,471-72.
245 [1965-1967 Transfer Binder] TRADE REG. REP. ¶ 17,260 (FTC 1965).
246 *Id.* at 22,361.
247 *Id.* at 22,360.
248 *Id.* at 22,361.
249 *Id.* at 22,363.
250 *Id.*
251 110 F. Supp. at 325-29.
252 *Id.* at 325-29.
253 *Id.* at 326, 327.
254 *Id.* at 326.
255 *Id.* at 329.

Courts have displayed concern in cases brought under section 7 of the Clayton Act over acquisition of (or by) a "most likely" market entrant. A leading case is *United States v. Penn-Olin Chemical Co.*,[256] which involved the creation of a joint subsidiary by Pennsalt and Olin-Mathieson to produce and sell sodium chlorate in the southeastern United States market. The Supreme Court reasoned that the venture would violate section 7 of the Clayton Act if it precluded either participant from separately entering the market while the other remained "at the edge of the market, continually threatening to enter."[257] The Court posited that potential competition was the next best thing to actual competition.[258] One firm's continual threat to enter would potentially compel the firms in an oligopolistic market to behave competitively, lest high profits precipitate invasion.[259]

The Court's holding in the *Penn-Olin* case raised some questions. First, when is a firm's position at the edge of the market so unique that it must be protected? If other worthy entrants are also lined up at the edge, why is the preservation of any particular one significant? Second, what determines whether a firm is actually at the edge of the market? The Court never came to grips with the first question, leaving an assumption that these must have been the only potential entrants. However, a year after Penn-Olin was established,[260] another entry was made into the southeastern market.[261] As to the second question, the Court cited the companies' resources, know-how, and capacity to enter, relying heavily on feasibility studies regarding independent entry made by employees of the venturers themselves.[262] The district court, on remand, decided that the recommendations from those studies were legitimately rejected by top management and that no independent intentions to enter were shown.[263]

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256 378 U.S. 158 (1964).

257 *Id.* at 173.

258 *Id.* at 174. Since one firm, Penn-Olin, did enter, the Court must have implicitly concluded that two potential competitors are superior to one actual competitor. *But see* Backman, *Joint Ventures in the Light of Recent Antitrust Developments: Joint Ventures in the Chemical Industry*, 10 ANTITRUST BULL. 7 (1965). Professor Backman argues that he "would give more weight to the bird in hand than to two in the bush." *Id.* at 9.

259 378 U.S. at 174.

260 On remand, the district court decided that neither producer would have independently entered, and the joint venture could be allowed. United States v. Penn-Olin Chem. Co., 246 F. Supp. 917 (D. Del. 1965), *aff'd*, 389 U.S. 308 (1967) (4-4 decision).

261 *See* Berger & Peterson, *supra* note 151, at 499.

262 378 U.S. at 175.

263 United States v. Penn-Olin Chem. Co., 246 F.2d Supp. 917, 925-28, 934 (1965). This substantiates the findings made by Backman in his study of the antitrust aspects of

In *United States v. El Paso Natural Gas Co.*,[264] decided just before *Penn-Olin*, the Supreme Court had an easier time voiding the acquisition of Pacific Northwest Pipeline by El Paso. Like Pennsalt and Olin, Pacific had not entered the relevant market (California natural gas), but unlike those companies, it had made overt, albeit vain attempts to do so. Pacific had been outbid on a contract to sell gas to a California utility by El Paso. El Paso's competitive response and Pacific's continued aggressive, resourceful efforts to enter that controlled market adequately demonstrated Pacific's impact.[265] The emergence of two other entrants into the market after the merger did not affect the Court's decision. This clear presence of potential entrants (demonstrated by no better proof than their subsequent entry), coupled with the complete ignorance of other potential entrants in *Penn-Olin*, underscores the importance that the Supreme Court has apparently attached to preserving as many potential competitors as possible.[266]

The Supreme Court struck down the Clorox-Procter & Gamble merger partly because Procter's influence at the edge of the liquid bleach market would have been negated.[267] While Clorox did fear the entry of Procter, it was similarly wary of Lever Brothers and Colgate-Palmolive.[268] Here again, the Court overlooked the position of Procter as a potential entrant vis-à-vis other potential entrants equally capable

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the chemical industry. He found that despite the existence of criteria by which entry feasibility may be determined, prediction of the number or identity of likely entrants is impossible. *See* Backman, *supra* note 258, at 12-14.

264 376 U.S. 651 (1964).

265 *Id.* at 660-61. Low discovered that Pacific was more bark than bite. Low 541. Although the company was aggressive, its low profits did not give it much real influence.

266 In contrast to the Court, Backman states that there were no anticompetitive consequences to the disappearance of one potential entrant if others remained in the field. *See* Backman, *supra* note 258, at 10-12. He neglects to say how many others, but his lowest numbered hypothetical was five. *Id.*

267 FTC v. Procter & Gamble Co., 386 U.S. 568 (1967).

268 Berger & Peterson, *supra* note 151, at 500. Armentano took an even broader view of the existence of potential entrants in his focus on the Commission's handling of the case:

> Why the FTC believed Procter to be virtually the *only* prospect for entry was never explained. Why weren't Colgate-Palmolive, Lever Brothers, B.T. Babbit, or any number of large firms making related household products considered as potential competitors? Weren't these firms as likely—or as unlikely—to enter the bleach industry as Procter? In fact, why weren't any of America's industrial giants considered potential competitors? Weren't they "potential" enough? Since the FTC decided to play it "deuces wild" when they introduced *one* "potential" competitor, Procter, they should have been prepared to admit that there could have been many other potential competitors. That the number of potential competitors was reduced by one (and that one became an active competitor in the bleach industry), therefore, certainly cannot lead to the FTC conclusion that competition in the bleach industry was substantially lessened because Procter bought Clorox.

D. ARMENTANO, *supra* note 159, at 267 (emphasis in original).

of entering the market. Contrary to previous cases, however, it did recognize that the "number of potential entrants was not so large that the elimination of one would be insignificant."[269] Curiously, the ultimate order forcing the divestment of Clorox by Procter also forbade the independent entry of Procter into the liquid bleach market for five years.[270] This rendered nugatory any restraining influence Procter might have had as a potential competitor, at least for that period.[271]

The latest Supreme Court treatment of this issue was in *Ford Motor Co. v. United States*,[272] in which the Court relied on section 7 of the Clayton Act in ordering Ford to divest its Autolite spark plug acquisition.[273] Mr. Justice Douglas accepted the district court's finding that Ford's independent perch at the edge of the replacement spark plug market was more helpful to market competition than had it entered by merger.[274] This was because Ford's entry by acquisition would have removed from prominence the previous independent supplier to Ford and ended Ford's influence over replacement plug prices.[275] Ford probably exerted such influence because of the fear of firms in the market that high profits would induce Ford to enter. The Court did not concern itself with other potential entrants, probably because the oligopolistic nature of the auto industry made such analysis academic. The ability to generate interest in entry was within the power of the automakers, including Ford, since they were the major buyers. Not surprisingly, the spark plug industry mirrored the auto industry with a "big three." The Court prohibited Ford from entering the spark plug market for ten years and from using its name on other spark plugs for five years.[276] This order seems as inconsistent with the holding as was the order in Procter because it locked Ford out of the market for five years more than its projected start-up time.[277] Accordingly, Mr. Chief Justice Burger, objected, stressing that Ford's pre-acquisition influence at the edge of the market would be subverted by the order.[278]

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269 386 U.S. at 581.

270 Berger & Peterson, *supra* note 151, at 500.

271 *Id.* It cannot be assumed that the Court had no alternative remedy. Two possible remedies would have been: (*1*) to allow Procter & Gamble to develop internally a competing liquid bleach, or (*2*) to allow Procter & Gamble to acquire an incidental manufacturer of bleach (there were 200) and thereby obtain a toehold in the liquid bleach market with the capacity to later threaten major competition against Clorox.

272 405 U.S. 562 (1972).

273 *Id.*

274 *Id.* at 567-68.

275 *Id.* at 568.

276 *Id.* at 572.

277 *Id.* at 591, 591 n.4.

278 *Id.* at (Burger, C.J., concurring in part and dissenting in part). For those five

Two recent Federal Trade Commission decisions have treated entry barriers rather extensively, one acceptably,[279] the other less so.[280] Each merits special consideration. *The Bendix Corp.*,[281] reflects the frequent misuse of barrier theory. There, the Commission required Bendix, a manufacturer of automobile parts, to divest itself of recently-acquired Fram, the third largest producer of automotive filters.[282] Despite the industry's decreasing (albeit high) concentration, the Commission held that apart from the imminence of Bendix's independent entry into the market, its ability to make a toehold entry by acquisition warranted a decision to unravel its merger with Fram.[283]

The opinion of the Commission utilized all the barrier criteria discussed above. It noted that from 1962 to 1969 "only" three new entries had been made, and only one since 1963.[284] It is difficult to assess the significance of this finding as a barrier measurer in light of the fact that there were only about thirty manufacturers of filters prior to 1962.[285] A ten percent increase in competitors in a seven-year period, contrary to the Commission's conclusion, could easily suggest low entry barriers.[286]

The Commission acknowledged that neither scale economies[287] nor cost advantages stood as entry barriers.[288] But it regarded promotional programs, of the types previously identified as raising product differentiation advantages, as significant barriers to entry.[289] Although the Commission's opinion emphasized that the largest competitors mounted the

years, Ford could not even generate trade acceptance of its "Ford" branded spark plug, thus retarding its ability to compete actively for up to 13 years.

279 Beatrice Foods Co., 3 TRADE REG. REP. ¶ 20,121 (FTC Sept. 28, 1972).

280 Bendix Corp., 3 TRADE REG. REP. ¶ 19,288 (FTC 1970), *vacated and remanded on other grounds*, 450 F.2d 534 (6th Cir. 1971).

281 3 TRADE REG. REP. ¶ 19,288 (FTC 1970).

282 *Id.* at 21,454.

283 *Id.* at 21,439, 21,441, 21,444-47.

284 *Id.* at 21,452.

285 *Id.* at 21,441.

286 One entrant produced filters only, the second produced other auto parts as well, and the third, Ford Motor Company, was an auto industry giant. *Id.* at 21,452 n.70. Potential entrants from all "walks of life" had apparently been attracted to, and succeeded in, the industry. This factor is hardly indicative of high entry barriers.

287 *Id.* at 21,451 n.64.

288 *Id.* The Commission stated that "[t]he manufacture of most automotive filters involves relatively simple, unsophisticated, and well-known technology, and there are no important existing patents." *Id.* at 21,441.

289 *Id.* at 21,451-52. Manufacturers utilized promotional plans involving bonus giveaways, contests, and the like. They also employed scores of "missionary" men to promote the product and build the brand allegiance of the retail and distributor trade. The opinion noted that the three largest filter manufacturers each employed over 100 such missionary men. *Id.* at 21,452.

most grandiose promotions, the court's opinion on appeal observed that smaller companies were profitable and also actively promoted their products.[290] If the smaller companies did not incur promotional costs comparable to those of the larger firms, which is fair to suppose, yet were still profitable, then use of the promotional costs model of the largest companies is misleading.[291] Therefore, the promotional expense required for a newcomer to become a viable industry competitor may be considerably less than the Commission suggests. If so, such expense may stand as a considerably milder barrier to entry. However, the Commission's characterization of the high industry advertising intensity, as opposed to other promotions, as artificially raising entry barriers may be more trustworthy than its other barrier analysis.[292]

The FTC regarded the industry presence of two corporate giants, General Motors and Ford, as a primary entry barrier.[293] Their "sheer size" and their ability to modify engine design and warranty in order to inhibit the use of other filters were thought to loom as ominous deterrents.[294] However, no empirical support for these assumptions was given. Indeed, the entire discussion is couched in the conditional teuse,[295] perhaps reflecting the Commission's own uncertainty as to the theory's validity.

Citing *Procter & Gamble* as authority, the opinion concluded that the number of potential entrants was so small that the withdrawal of Bendix would likely be competitively significant.[296] Yet "only" twenty-three manufacturers were deemed likely potential entrants[297] compared to the suggestion of three in *Procter*.[298] The Commission chipped away

290 Bendix Corp. v. FTC, 450 F.2d 534, 537-38 (6th Cir. 1971).

291 Although a manufacturer with only 3.2% of the market also employed a 100-man sales force, it is worth noting that this manufacturer was the seventh largest in the industry. Bendix Corp., 3 TRADE REG. REP. ¶ 19,288, at 21,439, 21,449 (FTC 1970). Also, the manufacturer, Hastings, makes many other auto products, the sale of which those missionary men doubtless also promote. They are not merely full-time filter sellers. *See* 1972 MOODY'S INDUSTRIAL MANUAL 597.

292 3 TRADE REG. REP. at 21,441, 21,452. The Commission found that most industry members spent some 4% to 5% of sales proceeds in advertising their products to the trade. *Id.* at 21,452 n.66. Although part of this advertising was undoubtedly informational, hence acceptable, the percentage was so high, considering that the advertising was not directed to consumers, that it strongly suggests much of the advertising was persuasive. The Commission also compared the advertising percentages for the filter industry with those of other industries. *Id.*

293 *Id.* at 21,451-52.

294 *Id.*

295 *Id.*

296 *Id.* at 21,452-53.

297 *Id.* at 21,453.

298 Procter & Gamble Co., 63 F.T.C. 1465, 1540-41, 1578-79 (1963).

at this large number by conjecturing that some would be deterred by the presence of General Motors and Ford, others would lack the expertise to compete, and still others would lack the resources.[299] The Commission concluded that apart from Bendix, only one potential competitor, Chrysler, had a salutary effect on the edge of the market.[300] The Commission did not consider the possibility that other companies not theretofore evincing an interest in entering might later do so. Additionally, the Commission, without precedent, tacitly assumed a more restrictive antiacquisition posture toward the strongest likely entrant than would be the case toward a weaker, but still "most likely," entrant. Such an approach transcends the economic view that only the maintenance of *some* potential entrants, capable of exercising a procompetitive effect on the market, is important.[301]

The most recent Federal Trade Commission pronouncement regarding entry barriers was much more thoughtfully considered. In *Beatrice Foods Co.*,[302] the Commission held a merger between Beatrice and Sexton Foods lawful even though Beatrice, a retail grocery distributor, would be precluded from entering a specialized institutional dry grocery market in which Sexton had theretofore been competing independently. The crucial factor for the Commission was the failure to show that there were no other food distributors able to enter the field or that entry was so difficult that Beatrice's loss on the horizon would be competitively significant.[303]

In a carefully written opinion, Commissioner Dennison first rejected the notion that market shares were at all relevant when, as here, the condition of entry was shown to be so low.[304] He then examined

299 3 TRADE REG. REP. at 21,452-53. To show the invalidity of this "chiseling" process, it is interesting to remember that the third largest filter manufacturer had less than $40 million in assets, with annual sales of less than $70 million. *Id.* at 21,441. It is not clear that a significant competitive influence would necessitate a comparable level of expenditure; however, the opinion makes it relevant that only 7 of the 14 auto-related potential entrants had sales over $100 million. *Id.* at 21,453 n.73. If the cost of viable entry would have been calculated on this basis alone, even most "small" (*i.e.*, less than $100 million in sales) companies considering entry would have had little difficulty in actually entering the field. Viable entry, of course, would not have required the entrant to become the third largest seller immediately.

300 *Id.* at 21,453. In Ford Motor Co. v. United States, 405 U.S. 562 (1972), Ford was the largest potential entrant. However, the Court was not confronted with the existence of any other likely entrants. Therefore, if Ford had been prohibited from entering, the only viable entrant would have been eliminated from the field.

301 *See* Backman, *supra* note 258, at 11-13.

302 3 TRADE REG. REP. ¶ 20,121 (FTC Sept. 28, 1972).

303 *Id.* at 22,109-10.

304 *Id.* at 22,109. The hearing examiner himself effectively ruled that market share was not relevant by finding a violation of § 7 of the Clayton Act, notwithstanding that

each specific barrier, finding none to be substantial enough to deter new entry.[305] He noted that the evidence amply demonstrated a history of high entry into the industry along with a large number of major, would-be entrants perched on its edge.[306]

The Commission's work may have been made somewhat easier by the knowledge that the market shares involved were small—between one and four percent for the acquired company in the national market.[307] In the *Procter & Gamble, Penn-Olin, El Paso,* and *Ford* cases, which used barrier theory to decide against the respondents, market share analysis alone might have indicated a violation.[308] Viewed in this light, it is not clear that either the courts or the Commission are yet responding directly to barrier criteria.[309] Arguably, Commissioner Dennison adopted the barrier approach to buttress what might have been a dismissal by market share analysis, had a clearer finding been available.[310] Thus, one is led to cautiously conclude that barrier analysis is being utilized as a make-weight at best.

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he found "active competition" and a "substantially fragmented trade." *In re* Beatrice Foods Co., No. 8814, at 22-24 (FTC, May 17, 1971). Using the Penn-Olin test, he found Beatrice to be a "most likely entrant" into the subject industry and Sexton a leading firm in the industry, and on these bases ordered divestment. *Id.*

It should be noted that the market share determination in this case was very suspect. *Id.* at 15-21. The examiner was apparently unable to ascertain a true measure of the market, and he stated that the "best" he could do was to "averag[e the] various claims." *Id.* at 20.

305 3 TRADE REG. REP. at 22,111, 22,113-15. The Commissioner eliminated economies of scale as factors. *Id.* at 22,113. Maximum efficiency was reached by maintaining a nominally minimum sales volume. Cost advantages were only slightly felt in the capital market, but the industry was not capital-intensive. Only a warehouse and a few trucks, all of which could be leased, were needed to operate. Also, supplies were readily available. Neither advertising nor product differentiation was found significant. *Id.* at 22,114-15. Size was also rejected as a barrier since there was no showing of specific harm therefrom. *Id.*

306 *Id.* at 22,113-14. The number of institutional distributors had grown from 1,500 to 2,500 between 1964 and 1970. Commissioner Dennison listed by name 14 major corporations that had displayed an interest in entering the market including Armour, Borden, Ralston-Purina, and H.J. Heinz. *Id.* at 22,113.

307 However, the Commission ignored the national figures, feeling that the relevant market was regional or local. Although there were conflicting views as to the number of companies includable in the relevant market, the Commission did not find it necessary to challenge the validity of the examiner's findings as to market share. *Id.* at 22,107-09.

308 In *Procter,* Clorox had nearly 50% of the liqnid bleach market. 386 U.S. at 571. In *Penn-Olin,* the joint venture's share of the relevant market was 27.6% with only four firms competing. 378 U.S. at 165. In *El Paso,* El Paso had all of the market, but Pacific Northwest would have had a substantial share if it had entered. 376 U.S. at 658-59. And in *Ford,* Autolite had 15% of the market in a three company industry. 405 U.S. at 566.

309 Concededly, the industry instances of high concentration and low barriers to entry may be infrequent. So may be the chance to respond.

310 The decision does not dispute the examiner's finding of a "substantially fragmented" trade. *Id.* at 22,107-09.

The foregoing survey has covered many of the cases in which barrier theory has been applied or misapplied. There also have been some cases amenable to barrier theory to which it has not been applied. Two examples will suffice. The case which has generated the most comment[311] is *United States v. Von's Grocery Co.*,[312] in which Mr. Justice Black ruled that the absolute drop in the number of supermarkets in the Los Angeles area indicated a "trend toward concentration" which justified the Court in annulling the Von's-Shopping Bag merger.[313] His opinion lacked even a word about entry barriers.

In dissent, Mr. Justice Stewart took up the tack. He fully recognized the ease of entering the supermarket industry.[314] There were no high capital requirements, no required patents or trade secrets, and no significant product differentiation. The incidence of entry and the number of prospective competitors was high.[315] Mr. Justice Stewart chided the court for misapprehending the present nature of the market.[316] The diminution of "mom and pop" stores was attributable more to new consumer shopping habits than to any anticompetitive market behavior.[317] The new market was more heavily composed of chains, but the history of entry and exit of these chains was "turbulent."[318] As Professor Richard E. Low concluded, the Court had a "clear opportunity" to accept ease of entry as a defense "but did not take advantage of it."[319] Its "oversight" in this case—one well qualified for the use of barrier analysis—suggests that the Court has been employing a random technique for resolving economic issues relating to alleged antitrust law violations.[320]

311 *See, e.g.*, Hutchinson, *Comment on the Von's Merger Case*, 1 ANTITRUST L. & ECON. REV., Spring 1968, at 101. Even the Attorney General's Committee To Study the Antitrust Laws was moved to comment on the *Von's* case. *See* THE ATTORNEY GENERAL'S NATIONAL COMMITTEE TO STUDY THE ANTITRUST LAWS, ANTITRUST DEVELOPMENTS 1955-1968, at 77 n.33 (1968).

312 384 U.S. 270 (1966).

313 *Id.* at 272-74.

314 *Id.* at 300 (Stewart, J., dissenting).

315 *Id.*

316 *Id.* at 288-89.

317 *Id.* at 288.

318 *Id.* at 291-92.

319 Low 517.

320 Concerning *Von's*, Professor Hutchinson lamented:

> It is hard to escape the conclusion that, at least as of the date . . . the Court handed down its opinion . . . its members had no real understanding of the economic concept of "competition" and thus of the economic policy the nation's economists have long assumed to be quite firmly embodied in our national antitrust laws. . . . [T]he *Von's* case, in short, represents an unfortunate . . . chapter in the Court's administration of the country's antitrust policy . . . .

Hutchinson, *supra* note 311, at 106.

The Supreme Court, in *Brown Shoe Co. v. United States*,[321] listed barriers to entry as a factor generally to be considered in viewing challenged mergers,[322] but then ignored them in its own consideration of the Brown-Kinney merger. Entry into both the manufacturing and retailing ends of the shoe industry was relatively easy.[323] Therefore, the Court's reliance on the decreasing numbers of manufacturers is not compelling.[324] It likely says more about conditions of exit than conditions of entry. Entry and exit do not necessarily reflect the same market conditions.[325] Arguably, if entry barriers were still low, the anticompetitive effects of increasing concentration could be mitigated.

The Court seemed to be greatly alarmed by the increasing vertical integration and consequent market foreclosure in the shoe industry. However, even on this point, the figures are ambiguous. Of 70,000 retail shoe outlets, only 4,944 were listed as linked to manufacturers.[326] True, this list may not be exhaustive, but the Court probably left out few significant integrated operations. There was no suggestion of decreasing numbers of retailers, nor of any lessening ability of independent retailers to purchase shoes. Furthermore, even manufacturer-owned stores were not always compelled to purchase their owner's product exclusively.[327] Neither the retailing nor manufacturing ends of the merger were frustrated by the threat of market foreclosure, so long as the vast bulk of retail outlets remained either unaffiliated or free to buy where they pleased. The entry issue seems particularly relevant here as the market share figures provide scant evidence of presumptive violation.[328]

B. *Merger Guidelines*

Before concluding the analysis, a look at the Justice Department's *Merger Guidelines*[329] is appropriate. The *Guidelines* prescribe general standards for merger law enforcement, emphasizing the elements of market structure that determine the conditions of competition (spe-

321 370 U.S. 294 (1962).

322 *Id.* at 322.

323 In United States v. United Shoe Mach. Corp., 110 F. Supp. 295 (D. Mass. 1953), the court noted that entry into shoe manufacturing was "easy." There was no historic lack of entry and no large capital requirement. *Id.* at 301. Shoe retailing entry conditions have been characterized as "not particularly difficult." SCHERER 251.

324 370 U.S. at 301.

325 *See* Low 528.

326 Brown Shoe Co. v. United States, 370 U.S. 294, 300-01 (1962).

327 For example, even the retail stores owned by Kinneys purchased only 20% of their shoes from Kinneys' manufacturing plants. *Id.* at 303.

328 *See id.* at 302-03.

329 U.S. DEP'T OF JUSTICE, MERGER GUIDELINES (1968).

cifically concentration, market shares, and entry barriers).[330] For horizontal mergers, however, no guidance is provided for defining entry barriers or measuring their height. Market share analysis plus other nonshare critera unrelated to entry barriers would seem to be the only tests for proving horizontal violation.[331]

Vertical merger analysis leans more heavily on determination of entry conditions.[332] The *Guidelines* spell out fairly precisely what kinds of barriers may signal a violation of section 7 of the Clayton Act.[333] Foreclosing markets to potential customers or suppliers, possibly necessitating entry in an integrated form, exposing new competitors to price and supply squeezes, and increasing opportunities for product differentiation are the barriers vertical mergers are thought most likely to raise.[334] Increased economies of scale were not thought to raise significant barriers to entry, partly because optimal economies usually occur at a size too small to arouse the Justice Department[335] and partly because such barriers are thought to be overshadowed in vertical mergers by others more damaging and less defensible, especially the barrier of foreclosure of nonintegrated entry.[336] Recognizing the inherent difficulties in projecting future market conditions after a vertical merger occurs, the *Guidelines* suggest that the primary test be market shares and present entry conditions in the involved industries.[337]

With regard to conglomerate mergers, the *Guidelines* suggest prosecution where the acquisition involves a potential entrant and an existing competitor with a fixed percentage (enumerated therein) market share.[338] Any acquisition of a likely entrant by a present competitor, made in order to avoid the likely disruption of such entry, would also be challengeable.[339] An acquisition which generally "may serve to entrench or increase the market power of the acquiring firm or raise barriers to entry in that market" would further precipitate Justice Department action.[340]

Not unlike the courts, the *Merger Guidelines* rely heavily on market share criteria. Where the Justice Department feels the safest,

330 *Id.* at 2.
331 *See id.* at 7-12.
332 *Id.* at 13.
333 *Id.* at 13-14.
334 *Id.* at 14.
335 *See id.* at 19, 20.
336 *Id.* at 14, 15.
337 *Id.* at 15.
338 *Id.* at 21-22.
339 *Id.* at 23.
340 *Id.* at 25.

that is, in the area of horizontal mergers, it relies most heavily on that standard.[341] The failure to utilize entry criteria for horizontal mergers seems to be a weakness, especially in light of the barriers recognized by economists and courts that are raised by horizontal combination. Otherwise, entry barriers, though not predominant, are at least recognized as more significant than past cases have suggested. The *Guidelines* single out product differentiation for special consideration,[342] reflecting more the economists' view of its importance than the view of prosecutors, courts, and possibly Congress. They also attempt to cure some of the problems left unsolved by *El Paso* and *Penn-Olin*, regarding potential entrants,[343] by interjecting a facile concentration standard with little consideration for the number of potential entrants.[344]

IV

BARRIER MEASUREMENT

Having decided that barriers to entry deserve more attention, the next step is to determine how they fit into present and future antitrust law enforcement plans. The primary problem with any application is that entry barriers are difficult to quantify. They are irregular and approximate, frequently rely on subjective evaluation,[345] and must be determined individually for each industry.[346] Additionally, the data

341 *See id.* at 8-10.

342 *Id.* at 14, 25.

343 *Id.* at 21-23.

344 The *Guidelines'* exclusive concentration approach is departed from only where the market falls into its least concentrated category (top 8 with 75% of the market). Then, an action would be brought if "there are no more than one or two likely entrants into the market." *Id.* at 22. One wonders if any industry would have so few likely entrants at its edge. For more concentrated industries, however, all that is required for action is that it involve "*one* of the most likely entrants," irrespective of the number of others. *Id.* (emphasis added). The *Guidelines'* approach to determining the most likely potential entrants

> accords primary significance to the firm's capability of entering on a competitively significant scale relative to the capability of other firms (*i.e.*, the technological and financial resources available to it) and to the firm's economic incentive to enter (evidenced by, for example, the general attractiveness of the market in terms of risk and profit; or any special relationship of the firm to the market; or the firm's manifested interest in entry; or the natural expausion pattern of the firm; or the like).

Id. at 22-23. This may be a more rigorous standard for measuring most likely entrants than is consistent with an apparent policy that diminishes the importance of the *number* of likely entrants. It is this author's contention that the quantity, as well as the quality, of potential entrants may be worth examining in *every* instance in which complaints involving such entrants are brought.

345 *See* BAIN 445.

346 BARRIERS 173-74.

needed to measure them is difficult to regularize.[347] The present goal is not to offer the substitution of one unreliable method for another, but rather to put barrier theory to use as much as possible in order to supplement and improve existing analytical tools and to frame a new perspective for future enforcement. For these purposes, precise measurement may not be necessary. Nevertheless, it might be instructive to hazard onto the thin ice of untested theory to suggest guidelines for the measurement of entry barriers, where possible.

The best method of measuring entry barriers, but the least susceptible to inter-industry analysis, is individual industry study. Bain's classic study employed only this method[348] and his results have never been challenged. Technically, the impact of entry barriers should be measured by the increased *prices* the existing competitors may charge without attracting new entrants.[349] However, such figures require a calculation of barrier impact first by other means and then an effort to transpose such impact onto a price scale.[350] The first task is difficult enough, without the need to extrapolate a second criterion as well. It is contended that would-be entrants may respond rationally to the existence of entry barriers, but often do not relate to the specific deterrence of price disadvantages which would reflect such barriers.[351] Measuring barriers, per se, better captures the very forces playing on would-be entrants.[352] This, plus the possibility that a second (price)

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347 P. ASCH, *supra* note 57, at 178. *See generally* LOW 521-24.

348 BARRIERS 48-52.

349 *See, e.g.*, Mueller, *supra* note 2, at 123-24.

350 *See* text accompanying note 153 *supra*. United Shoe Machinery, for example, was unable to price rationally. *See* text accompanying note 255 *supra*. However, consider Mueller's claim that "[C]alculation of the entry-forestalling price is one of the basic skills every significant firm in a concentrated industry is expected to show considerable proficiency in." Mueller, *supra* note 2, at 128.

Even if this statement be accepted, it does not allow for the *potential* entrant without pricing expertise whose personal calculation may be too imprecise to offer him guidance, and who, therefore, may respond unexpectedly to the limit price. On the other hand, this entrant's perception of such factors as high scale economies or excessive product differentiation may deter his entry, irrespective of possible low price barriers. It is not suggested that such would-be entrants perceive barriers as analytically as this article attempts to do, but rather that their perceptions are closer to the barrier approach than to an unrealistic, factually difficult concept of price disadvantages. If they are deterred, it is directly by the existence of entry barriers, and only indirectly by the necessity of higher prices upon entry which would be occasioned by such barriers.

351 *See* notes 349-50 and accompanying text *supra*.

352 It also better captures the forces at work on the tribunals. Courts normally do not frame the traditional tools of evaluating anticompetitiveness with respect to price. It is never said, for example, that x increase in concentration will lead to y higher prices. Occasionally, courts will refer to high profits, but specific price information is given less often. *See, e.g.*, United States v. E.I. duPont De Nemours & Co., 351 U.S. 377, 403-04 (1956).

calculation may be less reliable than the initial barrier measure, augurs against considering barriers in their price differential effects, despite any comparative advantages of such an approach.

With respect to scale economies, the appropriate measure would be the market share required by a firm producing at minimally full efficiency. According to questionnaire responses,[353] Bain calculated percentages for his sample. From his findings it can be generalized that industries with maximum economies at scales of production supplying at least eight percent of the relevant market have high barriers, three to eight percent moderate barriers, and less than three percent low barriers.[354] Other more technical devices for approaching scale economies have been suggested but their reliability has been challenged,[355] and they are best left for use in pre-litigation policy planning, where only relative precision is required.

Cost advantages are more difficult to measure quantitatively than scale economies.[356] Nevertheless, some untested guidelines are sug-

It is, therefore, folly to require entry barriers to stand up to a sterner test of measurement than other criteria the courts presently use.

353 Here is a sample of the questions asked of the cement firms in order to deduce scale economies in their industry.

> Concerning the size of plant or of firm necessary for maximum efficiency in the cement industry:
>
> A. What, in your opinion, is the most efficient size of a single plant (in terms of daily or annual output capacity) for producing cement?
>
> B. How much higher would costs per unit of output be with plants of successfully smaller size—e.g. one-half or one-fourth of the most efficient size?
>
> C. What would be the current investment, including working capital, necessary to establish a single plant of the most efficient size?
>
> D. Are there evident reductions of *production* cost attainable by a firm through growing to a size where it operates several plants of efficient size? Of *distribution* cost? If so, how large, in terms of overall output capacity, would the firm need to become to attain maximum efficiency? How much lower costs could it then attain than an efficient single-plant firm?
>
> E. What would be the principal sources of production or distribution cost reduction to such a large firm?
>
> F. What would be the current investment necessary to establish a cement firm of the most efficient size?

BARRIERS 225-26. Bain related responses to these questions to total industry output available from other sources in order to obtain market share measurement. *Id.* at 47, 68-71.

354 *See* BARRIERS 71-93. Bain's work contains an extensive discussion of scale economies. *Id.* It is truncated here because of the limited importance of scale economies as a factor in antitrust litigation. Bain's measure of scale economies, with respect to market share, avoids the difficulty of defining the relevant product and geographic market. *See* text accompanying notes 19-22 *supra*. By taking his sample findings from national markets in very general product industries, as suggested by his use of census data, he skirted much of the problem. *See* BARRIERS 47.

355 *See, e.g.*, Saving, *Estimation of Optimum Size of Plant by the Survivor Technique*, 75 Q.J. ECON. 569 (1961); Shepherd, *What Does the Survivor Technique Show About Economies of Scale?*, 34 S. ECON. J. 113 (1967).

356 Bain asked the cement manufacturers only the briefest questions on cost advan-

gested here. With regard to patents, there may be two, not necessarily mutually exclusive, approaches. One would be to determine the percentage of the production process or product of a firm that is unduplicable due to either product or manufacturing facility patents.[357] Presumably, Xerox and Polaroid would pose high barriers on this account, while Del Monte, a food processor, would not. Patents would constitute a high barrier if more than half[358] the process or product could not be duplicated because of them. It also would be significant to know when the term of these entry-forestalling patents expired.[359]

The second approach would be to ascertain the number of superfluous patents held by a firm which block competitive circumvention of primary patents. The accumulation of twenty-five percent more patents than the firm is presently applying, could be construed as raising high barriers. High barriers would also be present if even one key patent were shown to be guarded by a shield of two or three redundant patents. The firm could offer the defense that presently superfluous patents represent an advancement of present technology and would be utilized at a later time. Expert testimony could likely show which firm's patents are utilized and which are not.[360]

The cornering of resources in the relevant market as a barrier to

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tages, producing a descriptive, rather than quantitative, estimate of their force as barriers. BARRIERS 151, 226. Following are the questions asked:

> Concerning advantages of lower production cost to established firms.
> A. Assuming that a new firm were to build to a size comparable with that of the most efficient established firms, would it nevertheless tend to incur higher production costs for any reason, and if so, by about how much? For example, would it suffer perceptibly from:
> (1) Higher costs of financing?
> (2) Inability to obtain expert management personnel?
> (3) Lack of production "know-how"?
> (4) Higher costs of any raw material or equipment item?

Id. at 226.

357 One would not necessarily expect to find a string of patents foreclosing entry. However, if *one* critical patent prevented duplication of 60% of a production process or product, it would be considered as destructive as several.

358 All percentages or other figures used hereafter are largely the whim of the author. For various industries and circumstances, barriers may be raised at levels unrelated to the figures set out herein. More intensive multi-industry analysis may be required to hammer out truly reliable figures.

359 It might be introduced in mitigation of a high barrier measure that the relevant patents would be expiring within five years, *i.e.*, within the period that antitrust litigation frequently takes.

360 This thought on overall patent measurement may suggest that all patents are equal, *i.e.*, produced or imitated with equal development cost, or possessed of equal usefulness. The author readily admits that any such suggestion is invalid. If, then, the two-point plan fails by this shortcoming, at least, the basic concepts can remain as guides without numerical analysis.

entry is apparent only when the resources are rare, hence finite and measurable. In such situations, it should be easy to determine the percentage of an outstanding resource which is held by a firm. If new entry is deterred merely by the economic unavailability of more than sixty to seventy-five percent of a necessary resource, then the company holding that amount can be said to create high barriers. One difficulty in computing this percentage is that the economically usable supply upon which it is based may vary with the extent of competing uses to which the resource will be put in unrelated markets.

Capital requirements can be compared easily since they are measured in dollars, and the figures are not difficult to obtain. The standard by which capital requirements are measured is the cost of establishing one minimally efficient business operation. Bain found that capital requirements vary depending upon the industry into which entry is sought.[361] For general purposes, however, entry costs of between $10 and $50 million were characterized as high, with a requirement of between $2.5 and $10 million viewed as moderate, and less than $2.5 million seen as low.[362] A realistic present-day appraisal would designate capital requirements above $25 million as high, those between $8 million and $25 million as moderate, and those below $8 million as low.

In the abstract, such figures may not be particularly helpful. A meaningful evaluation of capital requirements as entry barriers must consider both the nature of the industry and the characteristics of specific potential entrants. For example, a large conglomerate with deep pockets may be deterred from entry only when the capital requirement is over $50 million, while an individual may be deterred by a $5 million required outlay. For policy reasons, however, even a conglomerate may be dissuaded from entering a high capital industry since the risk of loss is greater, and the commitment of capital to one venture prevents its alternative investment elsewhere. Nevertheless, the large company could enter when it decided to do so, as a policy matter, while the smaller firm could not. Still, the *number* of entrants will be reduced by high capital requirements, which may be significant despite their different sizes.[363]

361 BARRIERS 156-60.

362 *Id.*

363 With respect to research and development, although the percentage of revenues devoted to it can be easily figured, industries vary substantially in the amount which is normal, *i.e.*, technologically justified. Therefore, it is imprudent even to guess that an expenditure of x percent of sales for research constitutes an unnaturally high entry barrier for every industry. It could not be the purpose of any order to prohibit "natural" research; hence, suggestions for its measurement as a possible barrier are excluded.

Product differentiation is technically measured by the disparity of price and/or cost between the product produced by a new entrant and the competing product of an established firm.[364] While such a measure cannot always be made, Mueller provides at least two methods by which it might be estimated.[365]

One method is to average the estimates of competitors as to how much lower than the price of a leading product the price of an entering product would need to be in order for the new product to be able to compete successfully.[366] Of course, as Mueller implies, an accurate calculation of the maximum price which might be charged by a new entrant can come only from a newcomer who actually knows the price difference.[367] However, since such knowledgeable newcomers probably will not be in the highest barrier industries, this method has only limited usefulness.

Mueller also suggests that the price difference might be measured by comparing the "private label" product price with the "manufacturer's brand" product price to reflect the "consumer preference" (*i.e.*, differentiation) for the latter.[368] This measure, however, has only limited application. Many products are not sold under a private label; hence, comparison is impossible.

Another way to "measure" product differentiation is to determine what proportion of the firm's or industry's product is sold through exclusive distributorships. The continuing influence which a loyal distributor may have on promoting differentiation in the community is well-known. Therefore, a measure of the extent of such relationships should be informative.

For physically identical products, each product presumably should share an equal percentage of the market, assuming no other variables. Any deviation from this is almost certain evidence of product differentiation,[369] with the resultant skewing of market shares reflecting consumer preferences. Given a tribunal's ability to fix a geographic market, any firm's differentiation advantage could be calculated by the difference between its share and that share to which it would other-

364 *See* notes 97-99 and accompanying text *supra*.

365 Mueller, *supra* note 37, at 24-28.

366 *Id.* at 26.

367 *Id.*

368 *Id.* at 26-27.

369 *Id.* at 22-23. Limitations on any one competitor's production or distribution capability may be the only reasons, other than differentiation, for its less than proportional market share. There is an assumption that if a firm's reputation for a truly higher quality product accounts for a market share difference, then the products in the relevant market are not, in fact, physically identical.

wise be entitled were the market evenly divided among all competitors. The dominance of one or several companies in a market where all the products are identical is likely to be noticed by a potential entrant and viewed by him as a deterrent to entry.

With respect to markets in which there are a multiplicity of products, frequently with functional or quality differences more apparent than real, it would be appropriate to juxtapose scientific findings with the results of product-user surveys.[370] The disparity between user beliefs and rational evaluations of scientific analysis may highlight excessive design changes or variants on one basic product.[371] The effect of a spurious "full line" is to create product differentiation and user loyalty which can pose insurmountable obstacles to possible entrants.

The impact of advertising as a barrier may be measured by the percentage of industry or firm sales revenue which is spent on it.[372] The higher the percentage spent on advertising, the greater the deterrence of potential entrants. In many instances, advertising raises high barriers when industry advertising intensity exceeds seven to ten percent of sales.[373] There are, however, factors which may alter this high barrier threshold.

For example, the intensity of advertising may vary with the market served. If sales are made only to producers, then possibly a smaller advertising allotment, as a percentage of sales, need be spent to create high barriers. Advertising rates for specialized trade publications, which are the prime site of such promotions, are less expensive than those for

370 Apparent differences may be "real" to the consumer psyche. Insofar as a consumer's psychological needs for diversity are ignored, this gnideline may be unrealistic and arguably barbaric. Nevertheless, it is the author's position that subtle product differences, especially within one manufacturer's line, are not worth the price if they serve only to block new competition.

371 Such scientific analysis may range from laboratory testing of purportedly unique cosmetics, to surveying garagemen in order to determine the mechanical differences and variances in the frequency of repair for automobiles offered as superior to and, accordingly, priced higher than others of the same manufacturer.

372 It could also be measured by the absolute dollar amount spent by the average viable firm. Advertising, as a barrier raised by the affirmative action of firm management, is normally viewed in terms of "intensity," *i.e.*, as a percentage of revenues. *See generally* Shepherd. This makes it possible to set inter-industry comparative standards. Also, any deterrence must be commensurate with the amount of advertising thought to be needed for each dollar of revenue return. Industries requiring high absolute outlays for advertising may not deter entry on that account if the likely consequence of such expenditures will be proportionally higher sales.

373 Of 100 leading advertisers in 1971, 26 spent 7% of sales or more on advertising. ADVERTISING AGE, Aug. 28, 1972, at 26. Twenty-two of those were in the soap-cleanser or drug-cosmetic categories. *Id.* Not coincidentally, competing products in these categories are least physically distingnishable. *See generally* FTC v. Procter & Gamble Co., 386 U.S. 568, 572 (1967).

consumer oriented publications.[374] On the other hand, such advertising, geared to a more knowledgeable audience, may require more informational, as opposed to persuasive, content in order to be successful. It, therefore, may not be of the genre heretofore described as barrier raising. This may indicate that higher advertising intensity deters entry only in producer goods industries.[375]

In any action involving high advertising expenses it should be allowed as a defense that either the company is new or that it has introduced a new product, since both necessitate saturation advertising in order to wean the desired customers away from their previous suppliers. The defense should be infrequently encountered because new companies are rarely charged with antitrust infractions.[376] Moreover, such saturation advertising is unlikely to have lasted long enough to demonstrate a course or pattern of conduct upon which an order to cease and desist could be realistically based.[377]

V

FUTURE DIRECTIONS IN BARRIER ANALYSIS

It is widely agreed that economies of scale should not normally be sacrificed merely because they contribute to high entry barriers.[378] As a policy matter, the trade-off is between lower production costs with

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374 For example, the cost of a black-and-white page of advertising in the professional periodical, *Drug Topics*, is approximately $1,466. 54 BUSINESS PUBLICATIONS RATES AND DATA, Dec. 24, 1972, at 339. A comparable advertisement in the roughly parallel consumer publication, *Today's Health*, costs some $3,100. 55 CONSUMER MAGAZINE & FARM PUBLICATION RULES AND DATA, March 27, 1973, at 207.

375 The assumption is that at some level even informative advertising results in diminishing returns in *informing* the user. At that level, its only purpose is to influence an element other than the user's intellect which effectuates his decision to purchase.

376 Indeed, it is the existence and encouragement of new competitors that this paper views as a major check on anticompetitive activity. It would be repugnant, from this standpoint, for the government to turn its sights on a company still recent enough in the industry to require saturation advertising.

377 Since the analysis has rejected the theory that bigness is an independent factor in deterring entry, no standards are suggested here for its measurement.

378 *See, e.g.*, KAYSEN & TURNER 78, 114; SCHERER 233.

In their proposed Concentrated Industries Act, the Neal Commission allowed the following exception for economies of scale: "Such decree shall not require that a firm take any steps which such firm establishes would result in a *substantial* loss of economies of scale." *White House Task Force Report on Antitrust Policy*, BNA ANTITRUST & TRADE REG. REP., No. 411, May 27, 1969, pt. II, at 13 (emphasis added). The provision implies that some loss of scale economies might be an acceptable by-product of a structural decree. *See also* Williamson, *supra* note 50, at 1525 (dominant companies allowed to defend on the basis of achieving scale economies from a natural monopoly). This problem, however,

full economies and less efficient production with more competitors. Despite the congressional desire to keep barriers porous for small business, the creation of an industry with inefficient producers a fortiori raises production costs and, ultimately, prices. Clearly, the public interest is better served by favoring lower prices, even at the expense of somewhat restricted entry in certain instances.[379]

Absolute cost advantages also are not usually significant as entry barriers,[380] and when they are significant, their effects can be mitigated in the public interest. Courts already have recognized cases of unnatural accumulation and protection of patents, as in *Hartford-Empire*.[381] More can be done in this area, however, to minimize the entry-barring effects of patents. Here, general policy favors some action, for it is the rights of patent holders only, a far smaller group than the general public, which must be weighed against the benefits of more competition. Although patent holders' rights are constitutionally protected, similarly protected copyright holders are compelled to license all musical compositions for reproduction purposes.[382] Compulsory licensing of significant patents would seem to be a logical duty to impose on a firm unnaturally accumulating them. In such instances, a licensing order could hardly be viewed as squelching scientific initiative.[383]

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normally is not encountered, since most challenged companies produce well beyond the minimum size needed to achive maximum economies, and any entry barriers are derived from other sources. *See* U.S. DEP'T OF JUSTICE, *supra* note 329, at 12.

379 Economies of scale could be utilized as the *Kennecott* decision seemed to do by "protecting" scarce potential entrants able to achieve those economies required to compete against firms in the market. However, the difficulty of meaningfully delimiting potential entrants, to be shown below, augurs against the use of this standard generally. *See* notes 412-13 and accompanying text *infra*.

380 Bain found cost advantages in only 3 of the 20 industries he examined. BARRIERS 214.

381 *See* notes 181-84 and accompanying text *supra*.

382 *See* 17 U.S.C. § 1(e) (1970).

383 In a similar vein, the Neal Commission recommended legislation which would require a patentee who licenses his patent to one to make that license available to all. *Task Force Report, supra* note 378, at 10, 21-23. Professor Jadlow also noted that the Drug Amendments of 1962 (Pub. L. No. 87-781, 76 Stat. 780) contained a provision, which was deleted before the act's passage, that would have required compulsory licensing of all drug patents three years after issuance at a predetermined royalty. Jadlow, *supra* note 81, at 107.

To debilitate the restrictive influences of patents, Kaysen and Turner suggest the institution of "petty patents" which would run for only 5 years and cover only inventions of "minor importance." KAYSEN & TURNER 171-72. They indicate that present patent applications are not carefully investigated, and that the full 17-year protection is granted to patents of doubtful originality. Presumably, the 5-year patent would be issued without investigation as to the originality of the invention. Then, patent office resources could be concentrated on the applications for 17-year patents—the type that now substantially inhibit entry. A 5-year patent would be more bearable, but it must be assumed that a prospectve

Other cost advantages may demand restriction only in special instances. The pharmaceutical industry, for example, whose member firms allegedly use research and development to block new entry, may merit unique consideration.[384] Management superiority, on the other hand, would never seem worthy of restriction. In its theoretically limitless supply, it is not a true barrier. Even when management superiority constitutes a barrier, dilution of this advantage would be an unwise and probably unworkable policy.[385]

High capital requirements pose a threat to entry more frequently than economies of scale or cost advantages, but often they are due to an unnecessarily integrated industry. Severing vertical connections in the industry would serve to lower capital requirements. Workable remedies could range from invalidating contracts establishing exclusive distributorships, to requiring offending producers to divest a vertical production link.[386] When capital requirements are high for reasons unrelated to integration, no court remedy could efficiently lower them. The same policy against reducing scale economies to induce entry is equally applicable here. Lowering capital requirements below the level of minimally efficient scale would ultimately cause price increases which would only injure the public. There may, however, be legislative or administrative devices for mitigating the effect of high capital requirements.[387]

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patentee, whose purpose is to bar entry, would not qualify for a 17-year patent. *See* note 359 *supra*. Unfortunately, this assumption may be unfounded.

There is professional disagreement about actions which impair the patent right. Professor Williamson's strategy for bifurcating dominant companies would preserve to them the defense that they became dominant because of existing patents. Williamson, *supra* note 50, at 1525. However, he does not treat this defeuse in sufficient detail to cousider the relatively infrequently encountered condition of excessive patent accumulation. At the extreme, Professor Armentano regards the patent right as absolute property, any impairment of which would constitute "theft." D. ARMENTANO, *supra* note 159, at 41-42.

384 Jadlow, *supra* note 81, at 105.

385 Williamson would allow a dominant firm to rebut the presumption of unlawful monopolization by proving "continuing, indivisible, absolute management superiority." Williamson, *supra* note 50, at 1525.

386 For example, if a market area's boomerang manufacturer also possesses the only shellac factory, it would be appropriate to require that factory to shellac the boomerangs which could only be carved by competitors lacking the capital for a shellacking facility. If this remedy failed, the next logical step would be to require the divestment of the shellac factory and its independent establishment to encourage the entry of carvers only, who would thereafter require less capital to enter.

387 The Small Business Administration, for example, has already provided loans to small businesses to help relieve concentration. SCHERER 125. There has been a suggestion to adopt special investment tax deductions for selected industries in order to lessen the effect of high capital requirements in the industry. BARRIERS 215-16. The administering agency merely would have to decide which industries are uncompetitive for reasons of

Product differentiation is the greatest deterrent to entry, but it is the least susceptible to systematic dissipation.[388] Apart from measurement difficulties, as a policy matter the trade-off between competitive regulation and the public interest is not necessarily advantageous. What must be sacrified for easier entry is the freedom of the public to make unfettered, if irrational, choices in the marketplace among as varied a selection as possible. However, elimination of market-chilling product differences may leave the consumer with a rather dull choice between products of varying quality, but little aesthetic appeal.[389]

Product differentiation frequently occurs in conjunction with other barriers.[390] For example, the automobile industry is tightly closed because of both product differentiation and high capital requirements. Simply forbidding product differentiation may not bring about new entry. A prohibition of product differentiation, therefore, would leave consumers with a smaller range of styles, and the increased competition necessary to lower prices and improve product quality may not result.[391]

The damaging element of product differentiation is that it raises costs and lures consumers into purchasing for reasons unrelated to quality. The de-emphasis of quality simply means that products do not last as long as they should, consumption generally is increased, and limited resources are more quickly exhausted. Ecologists warn that these tendencies must be reversed if this civilization is to avoid collapse.[392] When this factor is considered in relation to the regulation trade-off mentioned previously, a decision to reduce product differentiation is more justified.

Remedies available to existing tribunals include limiting pro-

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high capital requirements and then offer incentives accordingly. Although this would require new legislation, no additional administrative machinery would be needed in order to determine which industries were noncompetitive. Realistically, most stagnant industries are well-known to the Justice Department and to the FTC, and have been catalogued by studies such as those by Bain and Shepherd. These agencies only have to give their imprimatur to the specific application of the plan. Then, even passively, without other administrative or judicial interference, more competitive conditions might be established.

388 *See* BAIN 459-60. *See also* Brodley, *Oligopoly Power Under the Sherman and Clayton Acts—From Economic Theory to Legal Policy*, 19 STAN. L. REV. 285, 360 (1967).

389 *But see* Mueller, *supra* note 37, at 38.

390 Osborne concluded that for entry to be "effectively impeded" at least two of the three primary entry barriers must be found together. Osborne, *supra* note 96, at 400.

391 However, industry members would then compete on the basis of product quality rather than exaltation of design frills.

392 *See generally* D. MEADOWS, D. MEADOWS, R. RANDERS & W. BEHRENS, THE LIMITS TO GROWTH (1972) (predicting decline of civilization within 50 years unless radical changes in consumption habits and production orientation occur).

motional expenses to a fixed percentage of revenues[393] or a fixed type of activity,[394] forbidding periodic product style modifications,[395] and requiring divestment of integrated distributorships.[396] There are also administrative alternatives for reducing differentiation barriers. Assuming the FTC firmly acquires the rule-making power,[397] it should require quality grading and generic labelling[398] and set parameters for acceptable promotions.[399] More energetic proposals for reducing differentiation could be accomplished only by legislation.[400]

Advertising, often placed in the product differentiation category, can also contribute to all the barriers outlined above. Employed in a persuasive, rather than informational manner, it exacerbates all the effects of product differentiation by bringing the nonquality appeal home to the customer. The basic regulation policy trade-off is not unlike that for general product differentiation, but advertising seems

393 BARRIERS 217.

394 The provision of travelling junkets to physicians to coerce their future endorsement of the sponsor's line of pharmaceutical products would be a type of meretricious promotion subject to injunction.

395 Shepherd, *supra* note 106, at 236.

396 BARRIERS 217.

397 In National Petroleum Refineries Ass'n v. FTC, 340 F. Supp. 1343, 1350 (D.D.C. 1972), the district court concluded that the Federal Trade Commission Act, 15 U.S.C. §§ 41-58 (1970), "does not confer upon the Federal Trade Commission the authority to promulgate Trade Regulation Rules that have the effect of substantive law." The author is confident that this situation will be remedied by reversal on appeal or by legislation.

398 *See* BAIN 459-60.

399 The FTC's Bureau of Consumer Protection has undertaken programs relating to general advertising fairness. *See, e.g.*, FTC, REPORT ON THE AD SUBSTANTIATION PROGRAM (1972); FTC, PROPOSED GUIDES CONCERNING USE OF ENDORSEMENTS AND TESTIMONIALS IN ADVERTISING (1972). Insofar as promotions deceive consumers in ways other than advertising, the FTC may broaden its horizons to cope with these situations. Although the primary purpose of the Bureau of Consumer Protection is to prohibit deceptive trade practices and to force competition on the merits of the product, a welcome by-product of its efforts is a reduction of promotional barriers to entry. Since his promotions are not allowed to unfairly lock in the buyer to his product, theoretically a seller cannot insulate himself from the reasonable promotional efforts of a new competitor.

400 For example, publicly funded product testing laboratories could be established to assess the quality of consumer goods and to publicize the findings. The Consumers' Union could serve as a model for any broader effort.

It has also been suggested that firms be taxed more heavily for manufacturing inferior, nondurable products. Allaby, Allen, Davoll, Goldsmith & Lawrence, *Blueprint for Survival*, 2 ECOLOGIST, Jan. 1972, at 10. Perhaps it would be more realistic to offer tax incentives to manufacturers of superior, durable products. Presumably, the application of any such tax would have to be determined by the analysis of a product testing laboratory of the type suggested.

A more radical suggestion is essentially to vitiate the Trade-Mark Act of 1946 (ch. 540, 60 Stat. 427 (codified in scattered sections of 15, 28 U.S.C.)) by allowing "prospective rivals to copy rather closely the existing marks and names of established firms." Greenhut, *supra* note 13, at 329.

even less deserving of a laissez-faire attitude. Whereas product differentiation gives the public the right to shop irrationally, advertising only gives consumers the right to be exposed to frequently irrational, coercive messages.[401] Freedom of speech or press probably should not be stretched to protect the advertisers' attempts to stultify the public.[402]

The line between informational and persuasive advertising is difficult to draw, partly because each advertisement usually has elements of both.[403] But any inability to separate these elements should not preclude some control. Advertising generally should be more informative. It is probably easier to accomplish this than it would be to lessen other differentiation techniques. The Federal Trade Commission's Bureau of Consumer Protection has made dramatic efforts to control the accuracy and realism of advertising.[404] The Commission could act summarily to remove specific offensive advertisements from the media.[405] With a firm whose advertising excesses specifically skyrocket the costs of entry, a broader remedy would be the imposition of a temporary ceiling on the firm's future outlay for advertising.[406] Such a restriction would be discriminatory, but the same logic used to prohibit United Shoe's leasing could well apply here. If, through its use of an otherwise legal

401 *See generally* Turner.

402 In Valentine v. Chrestensen, 316 U.S. 52 (1942), the Court held constitutional a municipal ordinance which prohibited distribution in the streets of printed handbills containing advertising matter. The Court noted that although the states and municipalities may regulate the distribution of information in the streets, they may not impose undue burdens. *Id.* The Court maintained, however, "that the Constitution imposes no such restraint on government as respects purely commercial advertising." *Id. See also* E.F. Drew & Co. v. FTC, 235 F.2d 735 (2d Cir. 1956).

403 *Cf.* Bork, *Contrasts in Antitrust Theory: I*, 65 COLUM. L. REV. 401, 411 n.11 (1965).

404 *See* note 405 *infra.*

405 *See* Baum, *Antitrust Functions of the Federal Trade Commission: Area Discrimination and Product Differentiation*, 24 FED. B.J. 579, 603 (1964). Although the Commission's present advertising rules and guides are not specifically geared to diminishing persuasive advertising they often have that effect. Two guidelines that could be promulgated to limit promotional advertising are: (*1*) the prohibition of endorsements by all prominent persons whose prominence lies in an area other than that required for competence to evaluate the product and (*2*) the prohibition of any advertisement dominated by a prestige approach to selling the product, particularly to children (*i.e.*, the "be the first one on your block . . ." formula). These two advertising approaches contribute to product acceptance for nonquality reasons and hence, from a barrier standpoint, demand limitation. They also may be "deceptive" in the consumer protection sense.

406 BARRIERS 217. This approach recognizes that persuasive advertising might continue to be emphasized within the ceiling. To enforce an order allowing only a specific type of advertising (*viz.*, informational) would require an ability to define the type allowed, as well as the resources to make frequent quasi-judicial determinations. Therefore, a general ceiling, plus the Commission's occasional enforcement actions against specific advertisements, may be the most that can be realistically expected. *But see* Mueller, *supra* note 37, at 39-40.

device, a firm has thrown an industry into a noncompetitive state, and placed itself in a different, more advantageous position than other competitors, it is not discriminatory to strip it of that device in order to allow the industry to establish a more competitive equilibrium.[407] Furthermore, it seems reasonable to prohibit a merger if advertising-created entry barriers are likely to be raised. The *Procter & Gamble* decision may be criticized for the weakness of evidence, but the wisdom of limiting the effects of advertising has been at least theoretically borne out.

Firm size alone should not automatically result in antitrust action if it is alleged merely to deter entry. An action based solely on firm size would be a voyage on a ship of conjecture if reliable testimony from would-be entrants was lacking. For example, in a merger which brings a large conglomerate into an industry theretofore without a dominant firm, the immediate inclination might be to issue a complaint alleging, *inter alia*, that entry barriers had been raised by the psychological threat felt by otherwise likely entrants. But sometimes the effect of such entry is quite the reverse. Competitors and likely competitors may actually relax because local management expertise and zeal is often lost, and the parent company may be less interested in aggressively seeking profits than was the former owner.[408] All of this suggests that bigness need not deter entry. Before any complaints are brought on bigness grounds, it should be established clearly that identifiable potential entrants have refused to enter for this reason.[409] Insofar as bigness is a direct reflection of the existence of more traditional economic barriers, the same policies espoused above with respect to their preservation or attenuation should apply.[410]

Courts have shown continual interest in the role of potential entry. *Penn-Olin* and *El Paso* are two cases which illustrate zealous court protection of possible entrants.[411] Perhaps their treatment was an easy

407 *See* United States v. United Shoe Mach. Corp., 110 F. Supp. 295, 350 (D. Mass. 1953).

408 This hypothetical is the product of numerous discussions with small businessmen.

409 The author concedes that psychological entry barriers can exist, and that although not traceable by economic criteria, they may demand attention on rare occasions.

410 The Neal Commission flatly rejected bigness as a criterion for determining antitrust violations. The Commission wrote: "Remedial measures based on size alone would constitute a radical innovation in our antitrust policy and no rationale is available for determining the appropriate upper limit on the size to which a single firm may grow." *Task Force Report, supra* note 378, at 3. The size factor was further undermined by the Commission's following criticism: "Judicial bias against bigness in the Section 7 sector has resulted in a retreat from hard economic and legal analysis to the lotus-land of percentage tests." *Id.* at 28.

411 *See* notes 256-66 and accompanying text *supra*.

way out of dealing directly with conditions of entry, but what the courts have done is substitute one difficult problem for another. Indeed, identifying potential entrants is much more difficult than identifying entry barriers.[412]

This approach has shown that courts are uncertain and unknowledgeable about economic realities. The existence of low conditions of entry is two steps from actual competition. First, potential entrants must be attracted by low entry conditions, and second, those potential entrants must enter. If a potential entrant exists, *presumably* the barriers are low and all he need do is enter and compete. At the edge, the potential entrant stands for all to see, as the protector of reasonable prices in the market. However, he cannot enter successfully unless barriers are permeable. It is this aspect of the barrier problem which the courts have regarded as insignificant when potential entrants seemed present.

What the judiciary has sometimes done is imply low conditions of entry when real or apparent potential entrants are identified. By not considering the height of entry barriers generally, the courts have arbitrarily protected known likely entrants while ignoring the impact of other unforeseen possible entrants. Even the otherwise sound *Beatrice* case leaned on the potential entry crutch by listing several likely entrants as evidence of the insignificant effect of the merger.[413] To consider potential entrants in lieu of conditions of entry, however, can be a careless venture. In isolation, the perception of the market's edge is an unreliable criterion for judging alleged antitrust violations. Therefore, no suggestion can be made as to the meaningful use of potential entrant findings.

Any entry barriers which account for noncompetitive conditions and which are not the product of mergers or conspiracies[414] may be assailable under section 5 of the Federal Trade Commission Act.[415] Because of the untried theory which specific complaints against barrier-

412 *See* Brodley, *supra* note 388, at 358-59. An FTC staff study found that, in 1968, 181 of the largest 200 manufacturing corporations conducted business in at least 10 separate product markets. FTC BUREAU OF ECONOMICS, ECONOMIC REPORT ON CORPORATE MERGERS, *cited in Hearings on Economic Concentration Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary*, 91st Cong., 1st Sess., pt. 8A, at 224 (1969). This suggests that the number of potential entrants for any single industry, whether identified or not, may be substantial.

413 *See* note 306 and accompanying text *supra*. If potential entry theory is to be used at all, this may be the proper application.

414 In which case § 7 of the Clayton Act (15 U.S.C. § 18 (1970)) and § 1 of the Sherman Act (15 U.S.C. § 1 (1970)) might respectively apply.

415 15 U.S.C. § 45(a)(1) (1970) (unfair methods of competition declared unlawful).

creating industries might utilize, the more traditionally interpreted section 2 of the Sherman Act may be less useful at present. However, the recent *Sperry & Hutchinson*[416] case expanded the scope and broadened the power of the Commission. Under section 5 it is now quite certain that acts of promotional excess, for example, could be challenged without a showing of monopolistic structure in the industry.[417] The requisite measure of unfairness would be amply proven by the existence of high barriers to entry empirically demonstrated to have inhibited the insurgence of new competition.[418]

CONCLUSION

The primary role proposed for entry barrier theory is to add a new dimension to antitrust law enforcement. This would have three effects. First, it would demand the elevation of barrier theory to a position of prominence when more traditional criteria fail to lead to a satisfactory result.[419] It is not suggested that barrier analysis should supplant market share analysis in every instance, only that it should supplement it when the latter is questionable and supplant it when it is unreliable. Realistically, complaint counsel should be the first to recognize market share difficulties and it should be on his initiative that the barrier question is fully litigated.

Second, the existence of low entry barriers should be a factor in antitrust law enforcement. As a policy matter, complaints should not be brought in industries whose present structural infirmities are likely to be cured by future entry. If an industry can become more competitive through the natural entry of competitors over time, it is a waste of resources to attempt to achieve the same end artificially through litiga-

416 FTC v. Sperry & Hutchinson Co., 405 U.S. 233 (1972).

417 On the limits of the Commission's enforcement of § 5, the Court concluded:

> [T]he Federal Trade Commission does not arrogate excessive power to itself if, in measuring a practice against the elusive, but congressionally mandated standard of fairness, it, like a court of equity, considers public values beyond simply those enshrined in the *letter* or encompassed *in the spirit* of the antitrust laws.

Id. at 244 (emphasis added) (footnote omitted).

418 Moreover, pricing to inhibit entry may cause a primary-line injury within the Robinson-Patman Act (15 U.S.C. § 13(a) (1970)) and may be enjoinable if discrimination between customers can be shown. *See, e.g.*, FTC v. Anheuser-Busch, Inc., 363 U.S. 563 (1959).

419 Examples of such cases are *Beatrice*, where market share information was conflicting, and *Pabst*, where the court's split on geographic market definition made reliance on market share analysis somewhat unsettling. *See* notes 21 & 304 and accompanying text *supra*. The Commission, at least, has demonstrated some cognizance of barrier theory, as evidenced by *Beatrice*. Seemingly, therefore, in this respect barriers already are attracting long overdue attention.

tion requiring the same length of time with the additional risk of loss.[420] Once a complaint is issued, the defense of low entry barriers should be available to defense counsel, for when entry barriers are low, any anticompetitive effects are likely to be attenuated and the complaint should be dismissed.[421]

Third, antitrust actions should be brought in some cases *solely* to lower entry barriers. This policy could have several ramifications. Surgically precise complaints could be designed to attack specific barrier-raising practices which bear little relationship to concentration or monopolization, but which keep prices up and deny entry.[422] There should be a tendency to use the least disruptive remedy that will effectively correct the disorder. In a free economy, emphasis should be on remedies which simulate as nearly as possible a natural competitive recovery.[423]

Such limited actions are likely to be less expensive to bring[424] and may be less zealously fought by the respondent. It will be reasonably easy to show, for example, the quantity and quality of a respondent's promotions. They are public by their very nature.[425] Less reliance on economic opinions is needed when concentration considerations are rejected and a satisfactory standard of excesses is established. Settlement possibilities should be increased because defendants may be less resistant to the trade-off between the uncertain opportunity to control future entry and the immediate reduction in costs from a discontinued barrier-raising program. Also, if these activities are ordered ceased for an entire industry, the respondent may be yet more willing to settle since his activities may have been in reaction to others in the industry.

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420 *See* Mueller, *supra* note 2, at 129; Posner, *Oligopoly and the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562, 1593-98 (1969).

421 Low 543-44. Among all the cases examined, only *National Steel* and *Beatrice* leaned heavily on the defense of low entry barriers. *Von's Grocery*, in ignoring the defense, is not a persuasive decision, particularly in light of the less than convincing market share evidence. This defense would also offset the unfairness of present antitrust litigation in which prosecutors select only the most damaging economic evidence to support a complaint, taking the barrier view only when it serves the government's cause.

422 Without limited barrier actions, the less explosive weaponry needed to fight a guerilla-like anticompetitive war is lacking. Many promotional activities, which clearly have anticompetitive effects, cannot be altered by orders of divestment. If such promotion is successful, it establishes the product in a separate submarket, the bounds of which contain irrational, but loyal, users. To order a large company to divest a division with promotional excesses may do nothing, then, to destroy the submarket walls behind which the product's users remain trapped.

423 *See* Mueller, *supra* note 2, at 129.

424 *See* Posner, *supra* note 420, at 1597-98.

425 Proof of other entry barriers may also be established with less controversy than presently surrounds market share determination in many cases.

A general industry order then has the anomalous, but desirable, appearance of constructive collusion among competitors with an "agreement" not to conduct business in a certain costly way.

Finally, an action limited to lowering entry barriers may be "half-a-loaf" in circumstances where a proper action for divestment cannot practically be brought. Structuralists would, no doubt, suggest the severance of Ford and Chevrolet Motor Divisions from their parent companies. But the projected magnitude of the effort—with a likely expenditure of hundreds of millions of dollars, the threat of reprisal against the political party initiating the complaint by that portion of the populace supported by those auto makers, and the chance of loss by the mismatch of powerful Wall Street law firms and auto industry resources against undermanned government staffs with limited funds, and alternative uses for their resources—has militated against it. If, however, an action were brought against the big three to limit their design changes, to require the licensing of some of their protected production processes, and to disallow exclusive dealerships, the policy considerations might not be nearly so ominous. Even if new entrants were not induced into the market, the consumer still would be benefited by increased quality competition and perhaps price competition.

In short, an approach to antitrust law enforcement which regularly includes a consideration of entry barriers opens up new horizons for the full and fair maintenance of competitive conditions in the marketplace. That expanded consideration should become a reality.