1983

Limited Case for an Efficiency Defense in Horizontal Mergers

C. Paul Rogers III
Southern Methodist University, Dedman School of Law

THE LIMITED CASE FOR AN EFFICIENCY DEFENSE IN HORIZONTAL MERGERS

C. PAUL ROGERS*

The competitive consequences of horizontal mergers appear, superficially, to be easily discernible since by definition the merging parties were previously competitors[1] and the merger has eliminated whatever prior competition existed between the parties. Thus, it would seem that the inquiry under section 7 of the Clayton Act, which prohibits corporate acquisitions that "may . . . substantially lessen competition or . . . tend to create a monopoly,"[2] would be straightforward. That is, the antitrust analysis would simply focus on whether the elimination of competition between the merging parties is or could be "substantial" or tending to monopoly. Presumably, an examination of the relative market power of the merged firm and the pre- and post-concentration levels of the relevant market,[3] coupled with a review of historical information about the competitive levels of the market, would reveal the significance of the elimination of competition between the merging partners.[4]

---

* Associate Professor of Law, Southern Methodist University; B.A., J.D. University of Texas; L.L.M. Columbia University. The author wishes to thank Stephen F. Williams for his numerous helpful comments on an earlier draft. William J. Flittie, Diane MacArthur, and Bernhard Grossfeld also made insightful suggestions on previous drafts and Rebecca A. Halbower provided able research during the early stages of the project. Errors remain the author's responsibility.

1. Horizontal mergers involve firms previously operating in the same product market and in the same, or at least a related geographic market. The merger results in one entrant replacing two direct competitors. In contrast, the anticompetitive effects of nonhorizontal mergers are not as readily apparent since the merging firms did not previously compete with each other. *See generally* Bok, *Section 7 of the Clayton Act and the Merging of Law and Economics*, 74 HARV. L. REV. 226 (1960).

2. 15 U.S.C. § 18 (1976).

3. The level or "amount" of competition in a market might be gleaned by looking to patterns of entry and exit, and the stability and market positions of long-term entrants as well as their profit levels. More specifically, an attempt might be made to ascertain the normal differential between price and marginal or average variable cost.

4. Frequently, reviewing courts must focus on the anticompetitive potential or probability of a proposed merger. Although no actual proof of anticompetitive effect can exist in that context, the language of section 7 mandates a challenge to a proposed acquisition with probable or likely anticompetitive effects. Indeed, section 7 has been described as a prophylactic statute, designed to arrest anticompetitive mergers in their in-

Horizontal merger analysis has traditionally approximated the above thumbnail sketch. Market shares and levels of concentration, coupled with information concerning industry-wide trends of increased concentration, were almost exclusively relied upon as predictors of the anticompetitive consequences of mergers.[5] But, beginning with the Supreme Court's decision in *United States v. General Dynamics*,[6] antitrust analysis has become at once more complex and, hopefully, better able to ascertain the true impact of horizontal mergers on competition.

In *General Dynamics*, the Court looked beyond statistical evidence of market shares and focused on the competitive viability of the acquired firm.[7] The Court looked to the financial and technological circumstances of the acquired company and to demand behavior in the market to determine the competitive signficance of the elimination of the company as an independent entity. The *General Dynamics* Court recognized that a financially or technologically weak company is not as significant a competitor as its market position would indicate because its continued ability to compete is suspect.[8]

Further complicating contemporary merger analysis is the frequently made assertion that an otherwise illegal acquisition that will increase market efficiency should be an acceptable defense in an antitrust suit.[9] The courts and the enforcement agen-

---

cipiency. *See* Brown Shoe Co. v. United States, 370 U.S. 294, 317, 318 n.32 (1962); United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586, 589-91 (1957) (citing S. REP. No. 698, 63d Cong., 2d Sess. 13 (1914)).

5. *See* United States v. Pabst Brewing Co., 384 U.S. 546 (1966); United States v. Von's Grocery Co., 384 U.S. 270 (1966); United States v. Aluminum Co. of America, 377 U.S. 271 (1964); United States v. Continental Can Co., 378 U.S. 441 (1964); United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963); Brown Shoe Co. v. United States, 370 U.S. 294 (1962).

6. 415 U.S. 486 (1974). *See also* United States v. Citizens & S. Nat'l Bank, 422 U.S. 86 (1975).

7. *See infra* text accompanying notes 38-44.

8. For example, a downward decline in the market share of the acquired firm would be a prime indicator of a weakening position.

9. The efficiency concept is easily reduced to two separable but related general concepts. Efficiency as related to a certain firm, sometimes referred to as productive efficiency, refers to that firm's effective use of available resources. *See, e.g.*, Kornhauser, *A Guide to the Perplexed Claims of Efficiency in the Law*, 8 HOFSTRA L. REV. 591, 592-97 (1980). Fully efficient use of resources, which may include raw materials, technology, managerial skills, and financial wherewithal, will maximize the benefits while minimizing the costs arising from the firm's business. In contrast, the ineffective use of resources may threaten a firm's continued existence through inefficiency. For example, a manufac-

cies have traditionally rejected the notion that gains in efficiency may legitimize an otherwise illegal acquisition.[10] However, the

---

turing firm with adequate raw materials but inadequate technology to transform those materials into the finished product at costs which would allow the firm to be competitive is inefficient. A merger between competing firms may pool the firms' market resources, and provide the resulting firm with the capacity to operate more efficiently.

Allocative efficiency, on the other hand, refers to the efficient distribution of resources among competitors in a particular market. This concept of efficiency is often referred to in terms of Pareto optimality (after the Italian economist Vilfredo Pareto). A market is Pareto optimal (or Pareto efficient) if there is no change in the market that can make one better off without making another worse off. Since Pareto optimality is an unattainable state because of voluntary market imperfections, economists often use the Pareto concept in a relative rather than an absolute sense. Thus, if a distribution of resources produces a gain without concomitant losses, it is said to be "Pareto superior" to the previous distribution.

Another relational concept, Kaldor-Hicks efficiency, measures the total gain and loss of a change in resource distribution (as opposed to looking only for a gain without a loss). A particular distribution of resources would be more efficient in the Kaldor-Hicks sense if the gain from a previous state of affairs is sufficient to offset the loss caused to some (even if the gainers do not compensate the losers). Kaldor-Hicks efficiency is thus preferable to Pareto superiority in measuring efficiency increases because it permits gains to offset losses and permits an overall calculation of the net of efficiency gains and losses. In the real world is it usual for a market change to produce only efficiency gains? *See, e.g.*, Hovenkamp, *Distributive Justice and the Antitrust Laws*, 51 GEO. WASH. L. REV. 1, 8-10 (1982).

In a competitive sense, the allocative efficiency of the market increases if the distribution of resources in the market forces competitors to maximize the use of their resources in order to maintain their market shares. An efficient market should, because of higher productivity, competitive pricing, and lower costs, result in greater consumer welfare.

In order for a merger between competitors to produce a more efficient market, firm (or productive) efficiencies must result in allocative efficiencies. That is, it must be shown that the increase in efficiency of operation, etc., of the merged firm will produce a more competitive market, i.e., a better allocation of resources.

10. *See, e.g.*, United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 371 (1963) (economic advantage gained through merger that would enable merged bank to compete better with New York banks not a relevant consideration); Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962) (increased efficiency accomplished through the purchase of a large retail chain of shoe stores by a large shoe manufacturer anticompetitive because the resulting integration would harm local, unintegrated retailers); *In re* Foremost Dairies, Inc., 60 F.T.C. 944, 1084 (1962) ("the necessary proof of violation of the statute consists of types of evidence showing that the acquiring firm possesses significant power in some markets or that its over-all organization gives it a decisive advantage in efficiency over its smaller rivals"). *Cf.* FTC v. Procter & Gamble Co., 386 U.S. 568, 598 (1967) (Harlan, J., concurring) (economic efficiencies are procompetitive because competitive benefits gained thereby "may stimulate matching innovation by others, the very essence of competition"); *In re* General Foods Corp., 69 F.T.C. 380, 458 (1966) (Elman, Comm'r, dissenting) (arguing that efficiencies should not be a ground for invalidation of a merger but should be a goal for "the promotion of competition"). *See also* U.S. Dep't of Justice Merger Guidelines §§ II(10), III(14) (May 30, 1968) (increased economic efficiencies not a justification for a merger, absent exceptional circumstances); U.S. Dep't of Justice Merger Guidelines, 47 Fed. Reg. 28,493, 28,502 (1982) (except in extraordinary

attainment of efficiencies[11] has increasingly been recognized as an appropriate (some would argue the only appropriate) antitrust goal.[12] In the merger context, the issue is whether the efficiency gains of the merged firm should offset what otherwise might appear to be an anticompetitive acquisition. The efficiency defense has striking parallels to the defenses legitimized in *General Dynamics*. Both may amount to justifications that rebut a prima facie case of illegality and both may influence thinking as to when mergers are truly anticompetitive.

The purpose of this article will be to define the parameters of the efficiency defense's uses in the horizontal merger context. The article will inquire initially whether section 7 of the Clayton Act even permits considerations of efficiency. Second, the article will compare efficiency considerations with the *General Dynam-*

---

cases specific efficiencies not a mitigating factor).

Recently the FTC divided 2 to 2 on the question whether alleged efficiency gains resulting from an acquisition by SCM Corporation of two manufacturing plants owned by Gulf and Western Industries, Inc. were sufficiently large and certain to forestall an FTC challenge to the merger. SCM had approximately 15% of the domestic titanium dioxide market while the Gulf and Western plants produced about 8% of the same market. Because of the failure of the FTC Commissioners to overturn a decision by the Director of the Bureau of Competition not to attempt to enjoin the acquisition, it went unchallenged. *See* 45 ANTITRUST & TRADE REG. REP. 751 (Nov. 10, 1983).

11. The terms "economic efficiency" and "wealth maximization" are often used interchangeably to describe what common law goals are or ought to be. They are not, however, identical concepts. Efficiency is a concept used to evaluate whether the greatest good or benefit, given obtainable resources, has been achieved, whether for a certain firm or a certain market. *See supra* note 9. Wealth maximization posits that the goal of the greatest good or benefit should be defined as wealth, thereby deviating from conventional economic notions that one might want to maximize utility. *See* Coleman, *Efficiency, Utility, and Wealth Maximization*, 8 HOFSTRA L. REV. 509 (1980); Hovenkamp, *supra* note 9, at 9-16.

12. *See, e.g.*, R. BORK, THE ANTITRUST PARADOX 90-133 (1978); Dewey, *The Economic Theory of Antitrust: Science or Religion?*, 50 VA. L. REV. 413 (1964); Elzinga, *The Goals of Antitrust: Other Than Competition and Efficiency, What Else Counts?*, 125 U. PA. L. REV. 1191 (1977); Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925 (1979); *cf.* Carstensen, *Antitrust Law and the Paradigm of Industrial Organization*, 16 U.C.D. L. REV. 487 (1983); Fox, *The Modernization of Antitrust: A New Equilibrium*, 66 CORNELL L. REV. 1140 (1981); Hovenkamp, *supra* note 9; Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 HASTINGS L. J. 65 (1982); Pitofsky, *The Political Content of Antitrust*, 27 U. PA. L. REV. 1051 (1979); Schwartz, *"Justice" and other Non-Economic Goals of Antitrust*, 127 U. PA. L. REV. 1076 (1979); Sullivan, *Economics and More Humanistic Disciplines: What are the Sources of Wisdom for Antitrust?*, 125 U. PA. L. REV. 1214 (1977). *See also* the debate in Bork, Bowman, Blake & Jones, *The Goals of Antitrust: A Dialogue on Policy*, 65 COLUM. L. REV. 363 (1965), and *Antitrust Symposium*, 27 ST. LOUIS U.L.J. 287 (1983).

ics defenses in order to determine whether consideration of efficiencies necessitates a different analytical approach. Third, the efficient (or inefficient) nature of horizontal mergers in general will be studied, and an attempt will be made to define and examine specific kinds of efficiencies likely to arise in horizontal mergers so that the merits of individual efficiency arguments can be ascertained. Fourth, functional and statutory requirements will be outlined to demonstrate the pragmatic limitations of the defense. Finally, a case for a limited qualitative efficiency defense will be set forth.

I. STATUTORY INTERPRETATION OF SECTION 7

Section 7 of the Clayton Act is said to be prophylactic in nature since it prohibits mergers exhibiting probable, as opposed to certain or actual, anticompetitive effects.[13] An acquisition that may substantially lessen competition will run afoul of the statute. However, the section's preventative quality may preclude the consideration of merger-caused efficiency gains. The key question of statutory interpretation is whether section 7 precludes *any* substantial lessening of competition caused by a merger, or whether the statute is directed to substantial lessenings of competition *on balance*. In traditional antitrust parlance the issue is whether section 7 mandates what approximates a per se or a rule of reason approach.[14]

In the context of a horizontal merger, the question becomes whether section 7 removes a company's option to expand by ac-

---

13. *See supra* note 4.

14. A per se offense is one in which the restraint on competition is so patently contrary to a free market system that no justification for the practice is acceptable. *See, e.g.*, Arizona v. Maricopa County Medical Soc'y, 102 S. Ct. 2466, 2468 (1982); United States v. Topco Assocs., 405 U.S. 596, 607-12 (1972). A rule of reason analysis is adopted to those practices that may have procompetitive aspects which offset the anticompetitive effects of the activity. A balancing of both factors is mandated to determine whether the conduct is a "reasonable" or "unreasonable" restraint of trade. *See, e.g.*, Broadcast Music, Inc. v. CBS, Inc., 441 U.S. 1, 24-25 (1979); National Soc'y of Professional Eng'rs v. United States, 435 U.S. 679, 687-92 (1978); Continental T.V., Inc. v. GTE Sylvania, Inc., 433 U.S. 36, 49 (1977); Northrop Corp. v. McDonnell Douglas Corp., 705 F. 2d 1030 (9th Cir.), *cert. denied*, 104 S. Ct. 156 (1983). The requirement that restraints of trade be unreasonable to be illegal is a judicial gloss on the statutory language of section 1 of the Sherman Act that has long been recognized as necessary to render the statute workable. *See* Standard Oil Co. v. United States, 221 U.S. 1, 59-60 (1911); United States v. American Tobacco Co., 221 U.S. 106, 177-81 (1911); Hopkins v. United States, 171 U.S. 578, 600 (1898); United States v. Joint Traffic Ass'n, 171 U.S. 505, 568 (1898).

quiring a competitor, thereby bettering its ability to compete in the market, if the elimination of competition with the acquired firm is substantial. Efficiency considerations are directly applicable here, because a perceived gain in efficiency may be a primary reason for acquisition;[15] that is, a gain in efficiencies through merger may create better competitive opportunities for the resulting firm.

If efficiency gains are relevant in the legal analysis of horizontal mergers, some sort of tradeoff analysis focusing on the elimination of competition between two direct competitors weighed against the efficiency-endangered competitive advantages gained by the merged firm against the rest of the market must be permitted.[16] In other words, is it reasonable, under section 7, to eliminate a direct competitor by acquisition if the efficiencies gained thereby will enable the merged firm to compete better? Under a tradeoff approach, the amount of efficiency gained would be weighed against the quantity of competition eliminated.[17] The level of concentration of the market, the market positions of the two firms, and the competitive trends in the market would also be gauged in order to assess the true competitive impact of the merger.[18]

Although it may be argued that any consideration of efficiency gains would defeat the congressional intent of arresting anticompetitive mergers in their incipiency,[19] logic leads to the opposite conclusion. First, section 7 prohibits mergers the effect of which may be substantially to lessen competition. It does not preclude *any* lessening of competition, only a substantial lessening of competition. This qualification seems by design, since

---

15. *See infra* note 49 and accompanying text.

16. A per se approach would simply focus on whether the acquisition fostered an anticompetitive intent or was likely to result in an anticompetitive effect. *See* United States v. Socony-Vacuum Oil Co., 310 U.S. 150, 224 n.59 (1940). The procompetitive effects of efficiency gains, if any, would be ignored since no balancing would take place.

17. The quantity of competition eliminated is often described as the increase in market share resulting from the merger. *See* Edwards, Joffe, Kolasky, McGowan, Mendez-Penate, Ordover, Proger, Solomon & Toepke, *Proposed Revisions of the Justice Department's Merger Guildelines*, 81 COLUM. L. REV. 1543, 1564 (1981) [hereinafter cited as Edwards]. *See also infra* text accompanying notes 81-82.

18. *See supra* note 5.

19. *See, e.g.*, Bok, *supra* note 1, at 318; Pitofsky, *supra* note 12, at 1064; Fox, Book Review, 54 N.Y.U. L. REV. 446, 460 (1979). *Cf.* Muris, *The Efficiency Defense Under Section 7 of the Clayton Act*, 30 CASE W. RES. L. REV. 381, 397-402 (1980).

Congress provided that such lessening of competition may occur in "*any* line of commerce" or "in *any* section of the country."[20] The statute is still a preventative one in that it does forbid mergers that may *substantially* lessen competition. It does not, however, forbid mergers that may cause *any* or *some* lessening of competition.

In order to determine if a merger may substantially lessen competition, the procompetitive as well as the anticompetitive aspects of an acquisition must be analyzed. The lessening of competition should not be considered "substantial" unless the potential anticompetitive aspects significantly outweigh, on balance, the procompetitive potentialities of the merger.

Efficiency gains can be procompetitive if they permit the merged firm to compete better with the rest of the market.[21] Efficiencies, then, are relevent in deciding whether a merger causes the likelihood of a *substantial* lessening of competition. They

---

20. 15 U.S.C. § 18 (1976). Detailed accounts of the legislative history of section 7 can be found in D. MARTIN, MERGERS AND THE CLAYTON ACT 20-56, 221-53 (1959); Handler & Robinson, *A Decade of Administration of the Celler-Kefauver Antimerger Act*, 61 COLUM. L. REV. 629, 652-74 (1961); Note, *Section 7 of the Clayton Act: A Legislative History*, 52 COLUM. L. REV. 766 (1952).

21. Gains in efficiency achieved by a monopolist redound to the benefit of that firm alone and serve to insulate it further from its competitors. Cost reductions may increase a monopolist's profit margins. (Cost reductions will reduce a monopolist's price since price is not a function of only cost or supply but is also a function of demand. However, depending on the demand curve, lower costs may permit a greater quantity of goods to be sold at a greater return per unit.) Entry barriers are increased since the lower cost grants the monopolist additional pricing flexibility with which to combat new or potential entrants.

Of course, the argument is frequently made that efficiency gains can be anticompetitive even when achieved by a non-monopolist because the continued ability of small, local entrants to compete is impeded. *See* Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962); *In re* Foremost Dairies, Inc., 60 F.T.C. 944, 1084 (1962). Since the efficiencies achieved by a non-monopolist presumably enhance that firm's ability to compete, the market benefits of that increase in competitive viability may be contrasted to the displacement or market harm suffered by smaller entrants in order to determine the overall competitive effect of the new efficiencies. (While losses to competitors should not be confused with diminutions in the level of competition, the disabling or exit of competitors may demonstrate a lessening of competition.) The size of the more efficient firm would be contrasted with the size of the small entrants. Further, the concentration of the industry and the relative position of the efficient firm and of the small entrants would have to be considered. In short, the measurements necessary to determine the competitive effect of efficiency gains on the market overall present substantial difficulties, particularly when viewed in a judicial context. See text *infra* part III for further consideration of the procompetitive nature of efficiencies, and text *infra* part VII for further elaboration on the difficulties of quantifying efficiency gains.

should form part of the equation on the procompetitive side, to be balanced against the potential anticompetitive aspects of a merger.

Strong policy underpinnings exist in favor of utilizing a traditional rule of reason analysis, encompassing efficiencies, in the merger arena.[22] Section 7 authorizes the courts to predict which mergers are likely to be anticompetitive. Certainly weighing the likely procompetitive aspects against the anticompetitive aspects of a merger should provide the courts with a more precise predictor, assuming an accurate measurement of each side of the equation can be achieved. Thus, if efficiencies can indeed be procompetitive, their consideration by courts may be necessary to the equation and to the process of ferreting out only mergers with real anticompetitive proclivities, in accordance with the congressional purpose of section 7.

II. PRECEDENTIAL AND PROCEDURAL CONSIDERATIONS

The stage for active judicial consideration of gains in efficiency in the analysis of the competitive effects of mergers seems to be set. As noted, section 7 certainly permits and perhaps requires the inclusion of efficiencies in any merger analysis. The current Administration favors a welfare maximization approach to antitrust enforcement generally[23] and has revised the Merger Guidelines to reflect its philosophy more accurately.[24] Further, much of the influential "new learning" about industrial economics strongly favors efficiency objectives for antitrust enforcement generally,[25] and efficiency gains have been given increased atten-

---

22. For a historical description of the use of the rule of reason in merger cases see W. LETWIN, LAW AND ECONOMIC POLICY IN AMERICA 265-70 (1965); L. SULLIVAN, HANDBOOK OF THE LAW OF ANTITRUST 584-87 (1977).

23. *See, e.g.*, Wines, *Reagan's Antitrust Line—Common Sense Or an Invitation to Corporate Abuse?*, Nat'l Journal, July 10, 1982, at 1204; Singer, *Big is Back in Favor—But Only If It Promotes Economic Efficiency*, Nat'l Journal, April 4, 1981, at 573.

24. U.S. Dep't of Justice Merger Guidelines, 47 Fed. Reg. 28,493 (1982). *See Symposium: 1982 Merger Guidelines*, 71 CALIF. L. REV. 280 (1983); Fox, *The New Merger Guidelines—A Blueprint for Micro-Economic Analysis*, 27 ANTITRUST BULL. 519 (1982); Note, *An Economic Analysis of the 1982 Justice Department Guidelines for Horizontal Mergers*, 67 MINN. L. REV. 749 (1983).

25. *See, e.g.*, INDUSTRIAL CONCENTRATION: THE NEW LEARNING (H. Goldschmid, H. Mann & J. Weston eds. 1974); U.S. DEP'T OF COMMERCE, MERGERS AND ECONOMIC EFFICIENCY (1980); Elzinga, *supra* note 12. *See generally* authorities cited *supra* note 12.

tion in the merger context.[26]

The obstacles to the acceptance of the efficiency rationale appear to arise in some measure from the constraints of stare decisis, from uncertainty about what constitutes a gain in efficiency, and from uncertainty about whether efficiency gains are in reality procompetitive. The Supreme Court's decision in *Brown Shoe Co. v. United States*[27] is illustrative. In *Brown Shoe*, the government argued that the purchase of a large independent retail chain of shoe stores by a large shoe manufacturer would stifle competition because the resulting integrated company would be able to undercut local unintegrated shoe stores through efficiencies achieved by the integration. The Supreme Court agreed, and ruled that the increase in operational efficiencies supported the finding of illegality, regardless of the potential benefits to consumers.[28] Similarly, in *United States v. Philadelphia National Bank*,[29] a case involving the merger of the second and third largest banks in the Philadelphia area, the Court refused to consider as a justification the argument that the resulting bank would be better able to compete with the larger New York banks. Although the efficiency arguments in the two cases can be differentiated,[30] the cases demonstrate the Court's earlier view that merger-engendered efficiency gains are anticompetitive because they hinder the ability of small firms to compete.

Interestingly, the Supreme Court has viewed efficiency gains in other antitrust contexts as procompetitive.[31] Recently, the

---

26. *See, e.g.*, Muris, *supra* note 19; Williamson, *Economies as an Antitrust Defense Revisited*, 125 U. PA. L. REV. 699 (1977); Jackson, *The Consideration of Economies in Merger Cases*, 43 J. BUS. 439 (1970).

27. 370 U.S. 294 (1962).

28. Counsel for the defendant had apparently felt compelled to take the anomalous position that the merger produced no economies or consumer benefit. Blake & Jones, *Toward a Three-Dimensional Antitrust Policy*, 65 COLUM. L. REV. 422, 456-57 (1965).

29. 374 U.S. 321 (1963).

30. The Court determined that the relevant geographic market in *Philadelphia National Bank* included only the Philadelphia metropolitan area. *Id.* at 359-61. Presumably, efficiencies promoting competition only outside the relevant market could not trade off the anticompetitive consequences in the market because of the language of section 7 prohibiting the likelihood of a substantial lessening of competition "in any section of the country." However, consideration of those efficiencies may be important in the initial relevant market determination.

31. *See, e.g.*, Tampa Electric Co. v. Nashville Coal Co., 365 U.S. 320, 328-29, 334 (1961) (efficiencies gained by virtue of a requirements contract supports legality); Times-

Court recognized that demonstrable economic efficiencies may compel a rule of reason rather than a per se analysis of a particular kind of restraint.[32] Furthermore, the reasonableness analysis, once found appropriate, often amounts to a balancing of the efficiencies achieved against the supposed anticompetitive effects of the restraint. For example, the Court recently held, in *Continental T.V., Inc. v. GTE Sylvania, Inc.*,[33] that a rule of reason approach was mandated for vertical non-price restraints because while such restraints reduce intrabrand competition, they promote interbrand competition.[34] According to the Court, efficiencies achieved in the distribution of the manufacturer's products promoted interbrand competition.[35] The majority believed that insulating retailers from intrabrand competition would enable them to promote and service the product better, thereby improving the products' competitive position in relation to competing products.[36] Thus, efficiencies were not only thought to be procompetitive, they were the only procompetitive trait set forth by the Court to justify a rule of reason approach for that class of restraints.

Picayune Publishing Co. v. United States, 345 U.S. 594, 623-24 (1953) ("unit plan" which required advertisers to place ads in both newspapers owned by defendant achieved operating efficiencies and supports finding that plan did not substantially affect competition). *Cf.* United States v. Topco Assocs., Inc., 405 U.S. 596 (1972) (efficiencies achieved through market division and cooperative buying by competitors do not support deviation from per se rule for territory allocation among competitors).

32. *See* United States v. United States Gypsum Co., 438 U.S. 422 (1978), where the Court found that exchanges of prices and other information among competitors may sometimes "increase economic efficiency and render markets more rather than less competitive. For this reason, we have held that such exchanges of information do not constitute a *per se* violation of the Sherman Act." *Id.* at 441 n.16 (citing United States v. Citizens & S. Nat'l Bank, 422 U.S. 86, 113 (1975) and United States v. Container Corp., 393 U.S. 333, 338 (1969) (Fortas, J., concurring)).

33. 433 U.S. 36 (1977). The Court was thus willing to balance procompetitive effects in one market against anticompetitive effects in another, in contrast to its refusal to engage in a similar tradeoff analysis in a horizontal market allocation case six years earlier. *See* United States v. Topco Assocs., Inc., 405 U.S. 596 (1972).

34. 433 U.S. at 54. In so holding, the Court expressly overruled United States v. Arnold, Schwinn & Co., 388 U.S. 365 (1967), which had applied a per se rule to vertically imposed customer restrictions where the manufacturer actually sold its product to the party it was seeking to restrict.

35. 433 U.S. at 58.

36. *Id.* at 54-55. *See* Gerhart, *The "Competitive Advantages" Explanation for Intrabrand Restraints: An Antitrust Analysis*, 1981 DUKE L.J. 417; Pitofsky, *The Sylvania Case: Antitrust Analysis of Non-Price Vertical Restrictions*, 78 COLUM. L. REV. 1 (1978); Strasser, *Vertical Territorial Restraints After Sylvania: A Policy Analysis and Proposed New Rule*, 1977 DUKE L.J. 775.

With respect to mergers, the Supreme Court seems only a small step away from sanctioning efficiency gains as a procompetitive effect of mergers, in spite of the troublesome precedents of *Brown Shoe* and *Philadelphia National Bank*. As noted, the Court's decision in *General Dynamics*[37] was a watershed of merger jurisprudence. The so-called *General Dynamics* justification defenses permitted by that decision mandate, in effect, a rule of reason analysis, and may set the stage for the judicial recognition of an efficiency defense.

General Dynamics involved the government's challenge to a merger of coal producers.[38] The government's approach was to demonstrate that the acquisition would materially increase the relevant market share of the acquiring company, thus significantly advancing a trend toward concentration in an already concentrated market.[39] The Court expressly recognized that the government's statistical proof had established a prima facie violation, but permitted the merger nonetheless.[40] The Court found it necessary to look beyond the statistical evidence of concentration levels to the "structure, history and probable future" of the coal industry in order to assess accurately the likely competitive consequences of the merger.[41] The government's proof concerning the amount of market foreclosure and market concentration would support a finding of "undue concentration," but only "in the absence of other considerations."[42]

In analyzing the coal industry, the Court found that the demand for and method of selling coal had changed. The acquired company turned out to be unable to compete vigorously for new

---

37. United States v. General Dynamics Corp., 415 U.S. 486 (1974).

38. Through a series of stock transactions, General Dynamics had become the country's fifth largest commercial coal producer. The government challenged a 1959 acquisition of United Electric Coal Company stock by Material Service Corporation, which was later acquired by General Dynamics. It was alleged that the acquisition substantially lessened competition in the sale and production of coal in the Eastern Interior Coal Province, one of the four major coal producing areas in the country (encompassing Illinois, Indiana, and parts of Kentucky, Tennessee, Iowa, Minnesota, Virginia, and Missouri). *Id.* at 490.

39. *Id.* at 494. The number of coal producing companies operating in Illinois had decreased from 144 to 39 between 1957 and 1967. The acquisition had increased the market share of the top two producers by either 14.5% or 22.4%, depending on the relevant market. *Id.* at 495.

40. *Id.* at 496-97.

41. *Id.* at 498.

42. *Id.* at 497-98.

long-term supply contracts because of very limited uncommitted coal reserves.[43] Since almost all coal was sold for future delivery pursuant to long-term supply contracts, the acquired company was a far less significant competitor than its market share, which was based on past and present sales, indicated.[44] According to the Court, the lower court's conclusion that the government's statistical case did not, when taken in context, indicate a likely anticompetitive merger was justified.

The *General Dynamics* decision, in permitting defendants more flexibility in justifying their acquisitions, represents a drastic departure from the analysis used in earlier merger cases.[45] However, *General Dynamics* provides few guidelines for lower courts to follow and could arguably be limited to its unique facts.[46] Nonetheless, the decision has been influential. A number of lower courts have followed *General Dynamics* and have attempted to look to the business and economic realities of the relevant market to assess probable competitive effects. Courts have allowed mergers where one company is shown to be a financially or technologically weak firm upon the theory that the elimination of such a "noncompetitor" from the market cannot

---

43. *Id.* at 501-02.

44. United, the acquired company, ranked fifth among Illinois coal producers in annual production but ranked tenth in reserve holdings. It controlled less than one percent of reserve holdings in Illinois, Indiana, and western Kentucky. United had already been forced to close several mines because of depleted reserves. *Id.* at 502-03. *See also* United States v. Citizens & S. Nat'l Bank, 422 U.S. 86, 120 (1975) (government's section 7 claim rejected because "the market-share statistics gave an inaccurate account of the acquisitions' probable effects on competition").

45. These earlier cases include United States v. Von's Grocery Co., 384 U.S. 270 (1966); United States v. Pabst Brewing Co., 384 U.S. 546 (1966); United States v. Continental Can Co., 378 U.S. 441 (1964); United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963); Brown Shoe Co. v. United States, 370 U.S. 294 (1962). *See* Rogers, *Perspectives on Corporate Mergers and the Antitrust Laws*, 12 LOY. U. CHI. L.J. 301, 304-11 (1981); Kirkpatrick & Mahinka, *The Supreme Court and the "New Economic Realism" of Section 7 of the Clayton Act*, 30 SW. L.J. 821 (1976); Lurie, *Mergers Under the Burger Court: An Anti-Antitrust Bias and Its Implications*, 23 VILL. L. REV. 213 (1978). *See generally* Gerhart, *The Supreme Court and Antitrust Analysis: The (Near) Triumph of the Chicago School*, 1982 SUP. CT. REV. 319; Sullivan, *Economic Jurisprudence of the Burger Court's Antitrust Policy: The First Thirteen Years*, 58 NOTRE DAME L. REV. 1 (1982).

46. *General Dynamics* has granted horizontal merger defendants substantial ammunition with which to combat section 7 allegations. However, the decision has resulted in some uncertainty and inconsistency in the lower federal courts. *See* Ponsoldt, *The Expansion of Horizontal Merger Defenses After* General Dynamics: *A Suggested Reconsideration of Sherman Act Principles*, 12 LOY. U. CHI. L.J. 361 (1981).

substantially lessen competition.[47]

Since the elimination of a weak, inefficient company may not reduce the level of competition in the market, the "noncompetitor" rationale is consistent with, although not as extreme as, allowing an efficiency defense. Further, if the resulting firm becomes a more vigorous competitor from the new combination of capital and assets, the elimination of an inefficient, ineffective firm can be viewed as procompetitive.[48] Gains in efficiency may frequently result from the purchase of a technologically or financially weak firm. Moreover, efficiencies perceived by the acquiring firm are often what made the acquisition attractive in the first place.[49]

---

47. *See, e.g.*, United States v. International Harvester, 564 F.2d 769 (7th Cir. 1977); Lektro Vend. Corp. v. The Vendo Corp., 500 F. Supp. 332, 360-62 (N.D. Ill. 1980); United States v. Consolidated Foods Corp., 455 F. Supp. 108 (E.D. Pa. 1978); *In re* The Pillsbury Company, 93 F.T.C. 966, 1011, 1015 (1979). *Cf.* RSR Corp. v. FTC, 602 F.2d 1317 (9th Cir. 1979); United States v. Amax, Inc., 402 F. Supp. 956 (D. Conn. 1975). The *General Dynamics* defenses are closely related to and sometimes confused with the "failing company" defense. *See* Citizen Publishing Co. v. United States, 394 U.S. 131 (1969); United States v. M.P.M., Inc., 397 F. Supp. 78 (D. Colo. 1975). The essential difference is that the failing company doctrine provides an absolute defense if the doctrine's requirements are met. The *General Dynamics* defenses are not absolute, but simply require further inquiry into the competitive effect of the acquisition. *See infra* text accompanying notes 49-52. *See also* United States v. Healthco, Inc., 387 F. Supp. 258 (S.D.N.Y.), *aff'd*, 535 F.2d 1243 (2d Cir. 1975); Laurenza, *Section 7 of the Clayton Act and the Failing Company: An Updated Perspective*, 65 VA. L. REV. 947 (1979).

48. *See* Kolb, *The Impact of Business Realities in Recent Potential Competition and Horizontal Merger Cases—The Government Can Lose*, 47 ANTITRUST L.J. 955 (1978); *cf.* Ponsoldt, *supra* note 46, at 376-91.

49. This statement is not uncontroverted. It is sensible to posit that an acquisition is attractive to the acquiring firm only if efficiencies or other factors which will provide a competitive return on investment are likely to result. *See, e.g.*, Turner, *Conglomerate Mergers and Section 7 of the Clayton Act*, 78 HARV. L. REV. 1313, 1354 (1965); White House Task Force on Antitrust Policy, Report on Antitrust Policy (1968) (statement of Robert H. Bork). But, at least in the horizontal context, an acquisition may occur simply to add to the acquiring firm's existing market share. The market may yield a high return; thus the acquisition of a competitor may be attractive for that reason alone. However, where the acquired company is technologically or financially weak, some efficiency gain should result, even in a high return market.

The question of corporate control may also undercut the proposition that efficiency gains are central to decisions to merge. Berle and Means believed that the diffusion of stock ownership largely immunized corporate management from effective shareholder, i.e., ownership control. *See* A. BERLE & G. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 69-118 (1932). Although shareholders are interested only in profit maximization, managers may be guided, at least partly, by different goals, such as increasing the size of the firm managed. The divergence of goals may be attributable to the fact that the pecuniary and nonpecuniary rewards that managers receive, such as salaries, bonuses, stock options, and promotions, may be more closely tied to the firm's growth

While an efficiency defense may superficially appear to be substantively as well as analytically similar to the justification defenses of *General Dynamics*, closer inspection reveals material differences. The *General Dynamics* Court treated proof of the acquired company's limited coal reserves as rebuttal evidence to the government's prima facie statistical case.[50] In essence, the defendant's evidence discredited the accuracy of the statistical proof and cast substantial doubt on the purported anticompetitive impact of the merger.

Evidence of efficiency gains might also rebut a prima facie case of illegality, but in a somewhat different manner, assuming that a showing of efficiency gains exhibits some potential procompetitive effects of a given merger.[51] An efficiency defense admits to the reliability of statistical proof of anticompetitive effect, but argues that the lessening of competition demonstrated by the evidence of market foreclosure is outweighed by the efficiency benefits to the resulting firm and to the market.[52] The analysis closely parallels the traditional rule of reason balancing test: the anticompetitive aspects of the merger are weighed against the increased ability of the merged firm to compete by reason of efficiencies achieved through the acquisition.[53]

---

rate than to its profit levels. *See, e.g.*, R. POSNER & K. SCOTT, ECONOMICS OF CORPORATION LAW AND SECURITIES REGULATION 195-231 (1980); Williamson, *Managerial Discretion and Business Behavior*, 53 AM. ECON. REV. 1032 (1963). It has been argued, however, in contradistinction, that a strong incentive for management to maximize profits exists to forestall takeover bids by those who believe that the firm would be more profitable if "properly managed." *See, e.g.*, Holl, *Control Type and the Market for Corporate Control in Large U.S. Corporations*, 25 J. IND. ECON. 259 (1977); Mandelker, *Risk and Return: The Case of Merging Firms*, 1 J. FIN. ECON. 303 (1979). If management goals do vary from profit maximization, the increased discretion afforded management by diffused ownership suggests that acquisitions sometimes occur for pure growth reasons rather than for efficiency or profit motives. *See* Rogers, *supra* note 45, at 314-17.

50. 415 U.S. 486, 496 (1974).

51. *But see supra* note 21. *See also infra* text Part III.

52. The market structure should be taken into account so that efficiency gains that benefit the resulting firm are shown to aid the competitive level of the market. *See supra* note 21.

One could argue that efficiency evidence rebuts the *accuracy* of a prima facie statistical case since the foreclosing of competition between the merging partners does not affect that market as appears from the proof of foreclosure because of the enhanced ability of the merged firm to compete through gains in efficiency. Either way, the efficiency proponent must show that the market is better off because of its (the merged firm's) new efficiencies.

53. The size of the before and after firms and the level of concentration of the market are crucial determinants. A merger of a competitive firm with 5% of a concen-

The efficiency defense, then, promotes a balancing test; the *General Dynamics* justification defense does not necessitate an argument that the merger will actually be procompetitive. The acquisition of a financially or technologically weak competitor does not have to be procompetitive (although it may be) to rebut effectively a prima facie case. The weak or noncompetitive rationale does not require a balance of likely competitive effects; rather, it posits that the merger is not as anticompetitive (or simply is not anticompetitive) as the percentage of market foreclosure of the merger, taken alone, indicates.[54] Under either approach, the section 7 requirement of a likely lessening of competition is not met, yet the efficiency defense can be seen as a procompetitive sword while the weak competitor defense resembles an anticompetitive shield.

It is important to note that the "trading off" of the procompetitive and anticompetitive effects of a merger required by the efficiency defense involves an analytically distinct step that goes beyond the weak competitor justifications approved in *General Dynamics*. A merger may achieve efficiencies when neither of the merged partners is financially or technologically disadvantaged.[55] Thus, while *General Dynamics* may open the door to efficiency considerations to a limited extent, it does not address the threshold issues of whether efficiencies should be considered, and, if so, what role they should be accorded in the horizontal merger context.

Although analytical differences exist between the *General Dynamics* defenses and efficiency justifications, the procedural similarities appear pronounced. Both would be used to rebut a prima facie violation and would have the effect of giving the trier of fact additional discretion. The weight to be accorded jus-

---

trated market to a weak, capital poor firm with 5% of the same market might produce efficiencies which would outweigh the direct loss of competition. It is likely, however, that such a merger would be considered legal without regard to efficiency considerations. *See, e.g.*, U.S. Dep't of Justice Merger Guidelines, 47 Fed. Reg. 28,493, 28,502 (1982). Thus, a key question is when should efficiency gains be *a* determinate or *the* determinate factor in the legal analysis of a horizontal acquisition. *See infra* text accompanying notes 158-60.

54. In contrast, the failing company defense was characterized in *General Dynamics* as the "lesser of two evils" approach in which the competitive thrust of the acquisition is measured against the adverse impact on competition (including business losses) if the acquired company goes out of business. 415 U.S. at 507.

55. *See infra* text Parts III and IV.

tification evidence to rebut a prima facie violation is within the province of the trier of fact. A reviewing court can reverse the trier of fact's determinations only for errors of law, that is, where the fact finder's conclusions are not supported by substantial evidence. This standard of review gives the trier of fact considerable discretion when evaluating the defendant's justificatory proof. The defendant has, in effect, nothing to lose by proffering evidence to rebut a prima facie case as authorized by *General Dynamics.*[56]

Consideration of gains in efficiency would also augment the fact finder's discretion by permitting it to balance the procompetitive effects of the new efficiencies against the anticompetitive consequences of the market share increase achieved by elimination of two direct competitors.[57] Once again the defendant would have the opportunity to defeat a prima facie case, in this instance by arguing that the merger is in fact procompetitive. The added discretion that consideration of efficiencies would afford the trier of fact would arguably parallel the *General Dynamics* rationale expanding analytical flexibility in order to identify more accurately mergers with real anticompetitive consequences.[58]

The added flexibility produced by permitting economic justification evidence is subject to abuse, however, and may work to subvert the courts' active consideration of gains in efficiency. Afraid of what has been characterized as the pairing of opportunism with "information impactedness,"[59] courts may be fearful of the accuracy and representativeness of justification data. The party contending that the merger will increase the efficiency of the market has far better access to the relevant data and can use this advantage to disclose and argue the economies involved selectively. Of course, the modern rules of discovery are aimed at

56. When the trier of fact is convinced by the defendant's evidence, the effect is to limit the reach of section 7, at least as it was generally interpreted prior to the *General Dynamics* decision. *See, e.g.*, United States v. Von's Grocery Co., 384 U.S. 270 (1966); United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963).

57. *See infra* text accompanying notes 80-82.

58. The added discretion afforded the trier of fact may permit mergers that exhibit substantial anticompetitive tendencies. Too much flexibility in the hands of novice fact finders may create aberrant results. For example, the fact finder may consider some, but not all, of the relevant market and demand factors in reaching a result. *See, e.g.*, United States v. General Dynamics Corp., 415 U.S. 486, 511 (1974) (Douglas, J., dissenting).

59. *See* Williamson, *supra* note 26, at 703.

reducing these types of advantages,[60] but the government nonetheless may have a difficult burden in demonstrating the incompleteness or distortion of the data.[61]

Further, the added discretion afforded the trier of fact provides greater opportunity for a court to manipulate the outcome according to its own predispositions and prejudices about the breadth of section 7, even to the extent of defeating the congressional intent underlying the statute. Indeed, the dissent in *General Dynamics* took grave exception to the majority's treatment of the rebuttal evidence, stating that its synthesis fell far short of considering all relevant factors and reflected "a deep-seated judicial bias against section 7 of the Clayton Act."[62] The same type of criticism could be leveled at judicial treatment of efficiency justifications and can, of course, come from either the proponents or the skeptics of efficiency.

A more fundamental problem, sometimes termed "bounded rationality,"[63] confronts the use of economies in the merger context. Our legal system may simply be ill-equipped to deal with sophisticated economic arguments put forth in an adversary context. Part of the problem lies with the fact that most judges and lawyers are not economists. But the main obstacle may arise from the incompatibility of economic theory with the legal system as manifested in the litigation process.[64] The balancing of efficiency gains against competitive loss in a horizontal acquisition is illustrative. Measuring potential operational or capital benefits to the workings of the resulting firm against the effect of the elimination of one firm from the market presents a real challenge to the courts' powers of perception and comprehension. If the balance struck is an intuitive one made by a judge with a lay knowledge of economics, it might be preferable to exclude efficiency considerations altogether.

Thus, the inability of courts to deal accurately with divergent economic arguments may be inherent in a system that seeks to arrive at truth through an adversarial process. Absent

---

60. *See* FED. R. CIV. P. 26-37.

61. Williamson, *supra* note 26, at 703.

62. United States v. General Dynamics Corp., 415 U.S. 486, 527 (1974) (Douglas, J., dissenting).

63. Williamson, *supra* note 26, at 702.

64. *Id. See also* Bok, *supra* note 1, at 228.

some analytic framework, decipherable and applicable by legal, as opposed to economic, arbiters, efficiencies, while clearly relevant to merger analysis, may prove intractable.[65] One of the major goals of this article is to outline such a decisional framework. This task is particularly important since, as noted, the enforcement authorities and the judiciary seem more receptive to an antitrust philosophy that is, at a minimum, cognizant of efficiency considerations. Thus, a workable analytic framework is needed to insure competent, predictable judgments in accord with the statutory design of section 7.

III. Efficiencies, Competitive Effects, and the Tradeoff Requirement

The underlying assumption thus far in this article has been that efficiency gains are, at least sometimes, procompetitive. It is, of course, crucial to determine if that assumption is warranted and, if it is, to define the limits of its validity.

First, recognizable differences exist between "real" or allocative economic efficiencies that will improve the ability of the merged firm to compete and will increase competition in the market, and merger-induced "pecuniary" efficiencies that result only in money savings for the firm.[66] For example, advertising advantages occasioned by an acquisition may not provide consumers with proportionately more information upon which to make an informed purchasing decision. The additional product

---

65. *See* Posner, *Antitrust Policy and the Supreme Court*, 75 Colum. L. Rev. 282, 313 (1975).

66. *See* F. Machlup, The Economics of Sellers' Competition 217-25 (1952); Blake & Jones, *supra* note 28, at 459. I use the terms "real" and "pecuniary" efficiencies hesitantly; they should not be confused with economists' use of real and pecuniary economies of scale. Those terms refer to different methods of achieving scale economies. For example, product specialization may attain real economies by reducing the amount of materials and labor needed to produce a unit of output. Large size may also provide cost savings through an increased ability to exact price concessions from suppliers, resulting in pecuniary economies of scale. *See* J. Bain, Barriers to New Competition 57 (1956); F. Scherer, Industrial Market Structure and Economic Performance 104-108 (2d ed. 1980). In contrast, my use of those terms encompasses the marketplace. That is, efficiencies are real if, by providing cost savings to a firm, they (1) enable that firm to better compete in the market, and (2) that enhanced ability results in increased competition overall in the market. Efficiencies are pecuniary if the cost savings do not benefit competition in the relevant market, for example, through the raising of artificial entry barriers or the entrenchment of a dominant firm. Presumably, the gains are then firm and not market oriented. *See supra* note 9 and *infra* text accompanying notes 68-75.

exposure results in cost savings for the merged firm but produces little consumer benefit.[67] Competition and entry may become predicated on large promotional campaigns designed to saturate the public and create artificial product differentiations.[68] Thus, the advertising "efficiencies" may heighten entry barriers by adding to artificial consumer preferences going beyond the relative advantages of the product. Viewed in that light, gains in efficiency produce no market benefit and may be deemed anticompetitive.[69]

It can be argued that the distinction just urged is more apparent than real because all efficiencies created through merger inure to the benefit of the resulting firm. That is, all economies result in cost savings, albeit sometimes indirectly, for the acquiring firm, whether the savings are achieved through operational improvements such as the combining of research and development departments, through capital improvements such as modernized production facilities, or through the advertising advantages that product diversification allows. But economies that benefit the merged firm do not necessarily have the same effect on competition.

Thus, the position of the firm in its relevant market must be considered in measuring the competitive impact of efficiency increases. If antitrust law indeed seeks to protect competition rather than competitors,[70] then efficiencies are relevant as a procompetitive factor only when they produce a more competitive market.[71] Presumably, the ultimate reckoning of the efficiency rationale must rest on purchaser benefit. By increasing

---

67. *See* FTC v. Procter & Gamble Co., 386 U.S. 568, 580 (1967).

68. *See* Address by Donald F. Turner on Advertising and Competition, delivered before the Briefing Conference on Federal Controls of Advertising and Promotion, Washington, D.C. (June 2, 1966), *reprinted in* M. HANDLER, H. BLAKE, R. PITOFSKY & H. GOLDSCHMID, TRADE REGULATION, CASES AND MATERIALS 1036-39 (1975).

69. Of course, a merger creating scale economies that enable the resulting firm to achieve the same advertising scale and output as existing competitors may be deemed procompetitive. Generally, however, advertising economies are not dependent on the market position of the advertiser and are thus not necessarily market beneficial.

70. *See* Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962).

71. An indirect dispersal of the efficiency gains to the market must occur. The dispersal effect (in terms of competition) occurs when the efficiency increase enhances the competitive capabilities of the merged firm and *that* creates a more competitive relevant market. The level of concentration in the market and the position of the acquiring firm before and after the merger are the crucial determinants of the latter requirement. *See infra* text accompanying note 74.

competition, incentive to the seller to reduce prices and costs intensifies and society has more goods available at lower cost.

Efficiencies gained through a merger that does not result in a more competitive marketplace aid only one competitor—the resulting firm—and not competition in the marketplace as a whole.[72] The new firm reaps the benefits of the new efficiencies, for example, through lower costs, which may lead to larger profit margins.[73]

Thus, the externalities that separate real economic efficiencies engendered by an acquisition and efficiencies that serve only the resulting firm are the nature of the market and its relationship, before and after the merger, to the firm.[74] Merger-induced efficiencies always redound to the benefit of the resulting firm; the essential question is whether those efficiencies will enable the firm to compete in a way that produces a more competitive market. For example, efficiency gains that permit a firm to encroach upon a concentrated market or at least aid the firm to become a more viable competitor in a market that is already competitive should be deemed "real" efficiencies. Merger-caused economies that either serve to create or entrench a dominant or leading firm are not procompetitive because there are no indications that anything but larger profit margins will accrue.[75]

The significance of "real" efficiencies gained may vary ac-

---

72. *See supra* text accompanying notes 66-69.

73. Additionally, the firm could decide to lower prices to undercut its competition and further increase its market share. This assumes an unchanging demand and new firm costs which are less than most rival firms in the market. *See also supra* note 21.

74. Efficiencies thus require a partial equilibrium analysis, involving the examination of one market with the assumption that extra market conditions that may affect the market remain unchanged or have a negligible effect. In contrast, a general equilibrium analysis considers the interdependence of quantities and prices of markets on each other. A general equilibrium analysis would further complicate the consideration of the value of efficiencies. Absent evidence that the relevant market is interacting significantly with other markets, it should perhaps be dispensed with on those grounds. *See* Williamson, *supra* note 26, at 702 & n.10. Of course, interaction or interdependence with other markets may simply be an argument for expanding the relevant market definition.

75. *See* United States v. Aluminum Co. of America (Rome Cable), 377 U.S. 271, 279 (1964). In that case, Alcoa, the market leader with 27.8% of the aluminum conductor market attempted to acquire Rome Cable, which had 1.3% of that market. The merger was prohibited because the high concentration level already in the market militated against even slight increases in concentration. The entrenchment theory is particularly prominent in product or geographic extension acquisitions. *See infra* note 76 and accompanying text.

cording to the type or class of acquisition involved. For example, the anticompetitive effects of product or geographic extension mergers are not as readily apparent as with a merger between two direct competitors. The former class of acquisition does not add to the acquiring firm's existing market share; the competitive impact is predicated upon the likelihood of the acquired firm's entrenchment in its market[76] or upon the elimination of the acquiring firm as a perceived potential market entrant.[77] In contrast, the competitive impact of a horizontal merger is immediate and direct; two competitors become one and the acquiring firm's market share is expanded accordingly.

Thus, the conflict between efficiency gains and impacts upon competition are most pronounced in the horizontal merger context. Further, because most mergers are challenged just before or shortly after culmination, the proponent of the merger can only argue for potential or probable efficiencies, as contrasted with the actual elimination of competition caused by the combination of two rivals. Of course, the effects of the elimination are still uncertain at this stage,[78] but, contrasted with the conjecture and uncertainty attendant to potentiality argu-

---

76. *See, e.g.*, FTC v. Procter & Gamble Co., 386 U.S. 568 (1967); *In re* General Foods Corp., 69 F.T.C. 380 (1966). Cost advantages gained by an acquired firm are often viewed as anticompetitive when the acquired firm is likely to become more dominant through its acquisition by a larger, deep-pocket, buyer. *See* Kennecott Copper Corp. v. FTC, 467 F.2d 67, 78 (10th Cir. 1972), *cert. denied*, 416 U.S. 909 (1974); United States v. Aluminum Co. of America (Cupples), 233 F. Supp. 718 (E.D. Mo. 1964), *aff'd*, 382 U.S. 12 (1965) (per curiam).

77. *See, e.g.*, United States v. Marine Bancorp., Inc., 418 U.S. 602 (1974); United States v. Falstaff Brewing Corp., 410 U.S. 526 (1973); Ford Motor Co. v. United States, 405 U.S. 562 (1972); United States v. El Paso Natural Gas Co., 376 U.S. 651 (1964). Similarly, with respect to a vertical merger, supply or sales opportunities for competitors may be curtailed or foreclosed. Existing competitors may eventually be forced to integrate upstream or downstream to compete and similar entry barriers may impede new competition. A vertical merger does not add to one's market share, it simply adds an additional market. *See, e.g.*, Brown Shoe Co. v. United States, 370 U.S. 294 (1962); United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586 (1957); Reynolds Metals Co. v. FTC, 309 F.2d 223 (D.C. Cir. 1962); United States v. Wilson Sporting Goods Co., 288 F. Supp. 543 (N.D. Ill. 1968); United States v. Standard Oil Co. (New Jersey), 253 F. Supp. 196 (D.N.J. 1966).

78. For example, a merger between firms with 7% and 10% market shares results in a firm with a 17% market share (although whether the firm will hold or increase that position is difficult to forecast). It is difficult to ascertain, however, the impact of that aggregation of market shares on the level of competition in the market, that is, whether the gap between the price and the marginal cost of competitors is reduced or increased.

ments,[79] proof of anticompetitive impact is likely to be more convincing. In any event, an argument based on a tradeoff of efficiencies against direct competition reduction presents acute analytical difficulties, since the anticompetitive and procompetitive aspects appear so divergent. Cases involving a substantial elimination of competition but with significant new economies of scale may prove formidable absent judicially usable measuring gauges.[80]

It is apparent that proposed efficiencies must be deemed procompetitive before they can become part of a decisional equation. Further, their evaluation as procompetitive depends on the nature of the market. The size of the merged firm before and after the merger must be compared to the level of concentration (that is, the competitiveness) of the relevant market. Only then can efficiencies legitimately be deemed beneficial to the market and thus procompetitive. In essence, a pre-balancing test evaluation of efficiency gains is necessary before the problems of weighing divergent competitive factors become ripe.

Once a determination is made that merger-induced efficiencies are procompetitive in a market sense, the tradeoff or balancing analysis, in which the procompetitive gains achieved through

---

79. *See* Note, *Horizontal Mergers After* United States v. General Dynamics Corp., 92 HARV. L. REV. 490, 508 (1978).

80. The 1968 merger guidelines pointed out that "there usually are severe difficulties in accurately establishing the existence and magnitude of economies claimed for a merger." U.S. Dep't of Justice Merger Guidelines § II(10) (May 30, 1968). Similarly, the new merger guidelines observe that "[p]lausible efficiencies are far easier to allege than to prove. Moreover, even if the existence of efficiencies were clear, their magnitudes would be extremely difficult to determine." U.S. Dep't of Justice Merger Guidelines, 47 Fed. Reg. 28,493, 28,502 (1982). The new guidelines permit the Justice Department to consider efficiency gains only "in extraordinary cases" where "clear and convincing evidence" of substantial economies is shown. *Id.* at 28,502. But the guidelines further state that "in the overwhelming majority of cases, the guidelines will allow firms to achieve available efficiencies through mergers without interference from the Department." *Id.* The simultaneously issued Federal Trade Commission Merger Guidelines refer to the efficiency defense as a "difficult issue." The FTC Guidelines support the use of efficiency gains for prosecutorial discretion purposes at the precomplaint stage but conclude "that there are too many analytical ambiguities associated with the issue of efficiencies to treat it as a legally cognizable defense." Federal Trade Commission Merger Guidelines, [Jan.-June] ANTITRUST & TRADE REG. REP. (BNA) No. 1069, at 1251, Special Supp. (June 17, 1982). Commissioner Miller dissented, asserting that scale-type efficiencies should form part of the legal analysis. *See also supra* text accompanying notes 63-65. Professor Williamson has asserted that the difficulty of a quantitative assessment does not mean that no consideration of efficiencies should be undertaken. *See* Williamson, *supra* note 26, at 731.

efficiencies must somehow be measured against the anticompetitive effects of the acquisition, becomes appropriate. As noted, in a horizontal merger a competitor is eliminated from the market, resulting in an increase in market share for the acquiring firm. Thus, the tradeoff analysis specifically requires that efficiency gains be measured against the increase in market share.

But an increase in market share does not necessarily denote a substantial lessening of competition.[81] Increases in market share are troublesome when an increase in market power results. Market power is often defined as the ability of a firm to decrease output and raise prices.[82] Thus, the tradeoff analysis need be undertaken only when the elimination of competition confers an additional degree of market power on the resulting firm. Otherwise, the merger will not meet the statutory requirement of a substantial lessening of competition and the efficiency justifications are unnecessary.

IV. Internal Expansion

At least one further obstacle confronts the successful use of an efficiency argument. Theoretically, a court sympathetic to efficiency considerations might enjoin an acquisition, even though the party defending the merger convincingly asserts that the gains in efficiency resulting from the acquisition in question are market beneficial and that those procompetitive benefits outweigh any anticompetitive consequences deriving from the merger.

The additional hurdle arises from the bias ingrained in section 7 favoring internal expansion. Section 7 prohibits only growth by acquisition, and the courts have frequently pointed to the possibility of internal (or de novo) market entry by an acquiring firm to support a finding of illegality.[83] Since section 7

---

81. *See* Edwards, *supra* note 17, at 1564. If it did, every horizontal merger would be in violation of section 7.

82. *See* Muris, *supra* note 19, at 384.

83. *See, e.g.*, Ford Motor Co. v. United States, 405 U.S. 562, 567-68 (1972); United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 370 (1963); Brown Shoe Co. v. United States, 370 U.S. 294, 345 n.72 (1962); United States v. Standard Oil Co. (New Jersey), 253 F. Supp. 196, 227 (D.N.J. 1966). The term "de novo entry" is not a synonym for internal growth or expansion in the horizontal context because a firm expanding horizontally by opening up new plants or production facilities is not a new market entry. De novo entry typically refers to the internal expansion of a firm into a different market.

discourages growth and entry by acquisition, the courts generally consider internal expansion and market entry de novo a more competitive alternative.[84] In the horizontal merger context, internal expansion probably does have a more positive effect on competition. Merger between competitors necessarily eliminates one market entrant, while a firm's internal growth, with a capital investment roughly paralleling that involved in the acquisition of a competitor, normally increases market capacity and productivity without any offsetting loss to competition.[85]

Thus, in the case of merger-engendered efficiencies, the courts should inquire whether the same advantages could be achieved by internal expansion. For example, if an acquisition produces substantial economies of scale through increased capacity for production, a court might properly inquire whether the acquiring firm's merger capital could have been used to expand the firm's existing production facilities rather than to purchase the assets of a competitor.[86]

Requiring an acquisition to satisfy this additional hurdle would have two demonstrable effects on merger litigation. First, it would further complicate consideration and analysis of efficiencies, increasing the problems of bounded rationality and information impactedness.[87] Second, the vitality of the efficiency rationale as a defense or justification would be limited to the extent that efficiencies achieved by an acquisition could be du-

---

84. For example, in a market expansion merger the acquiring firm gains market entry by purchasing an existing entrant. The anticompetitive consequences may arise from the elimination of the acquiring company as a potential market entrant or from the ability of the acquiring firm to entrench the existing entrant in an already concentrated market. *See* cases cited *supra* notes 76-77. Market entry in the same circumstances by internal expansion (de novo entry) may have many of the same anticompetitive consequences; however the entry will be "neglected" by the antitrust laws unless and until the new entrant threatens to gain monopoly power. Section 7 would not apply because no acquisition has occurred.

85. *See* Brown Shoe Co. v. United States, 370 U.S. 294, 345 n.72 (1962). Stated another way, internal expansion increases output while mergers do not (absent economies which reduce costs).

86. The feasibility of internal expansion as an alternative to growth by merger and the desirability of introducing it into the legal analysis are the source of uncertainty and disagreement. *Compare, e.g.*, 4 P. AREEDA & D. TURNER, ANTITRUST LAW ¶ 946 (1980) *with* Muris, *supra* note 19, at 389-92. The courts are unlikely, however, to ignore the possibility of internal expansion given the existing judicial authority. *See, e.g., supra* note 83 and cases cited therein.

87. *See supra* text accompanying notes 54-56.

plicated by internal expansion.[88] Even assuming that the trade-off analysis described above favors the merger, the additional step of considering internal growth alternatives would be required before the acquisition could be permitted.

V. Economies of Scale and Integration

The question of the usefulness of the efficiency defense remains unanswered. It is, so far, uncertain when efficiency arguments should prevail in the horizontal merger context. Further, it is unclear whether the structural and analytical impediments arising from Section 7 create biases that render arguments based on gains in economies superfluous. For example, does section 7's partiality for internal expansion render efficiency arguments ineffectual because of the likelihood that any merger-produced economies could have been achieved without the elimination of a competitor from the marketplace through internal expansion?

The merger defendant seeking to prove efficiencies must first show cost advantages resulting from the combination that would not have otherwise occurred.[89] Since he must convince the court that efficiency gains outweigh anticompetitive consequences attendant to the merger, he would seem to need demonstrable quantitative evidence to establish the defense. Certainly the measurement of efficiencies presents substantial theoretical and empirical difficulties.[90] But in the merger context, measurement is comparative, and although the broad questions perhaps cannot be ignored entirely,[91] analysis of the relationship of costs before and after the merger focuses the question and plainly identifies the defendant's task.

88. *See infra* text accompanying notes 126-27. *See also* Turner, *supra* note 49, at 1320-21.

89. In addition, the proponent must demonstrate that the efficiencies outweigh the elimination of a competitor from the market, resulting in a market that is more competitive overall. The proponent must further demonstrate that internal expansion could not have achieved the same result. *See supra* text Parts III and IV.

90. For example, on a general level, the relationship of scale economies to size is the source of continuing debate. *Compare* Scherer, *Economies of Scale and Industrial Concentration* in INDUSTRIAL CONCENTRATION: THE NEW LEARNING (H. Goldschmid, H. Mann & J. Weston eds. 1974) *with* McGee, *Efficiency and Economies of Size,* in INDUSTRIAL CONCENTRATION: THE NEW LEARNING 55 (H. Goldschmid, H. Mann & J. Weston eds. 1974).

91. That is, broad questions about whether size inherently produces cost savings are relevant in any given case.

Thus, the defendant must identify the kinds of efficiencies likely to result from a horizontal acquisition and analyze them with respect to the obstacles that a successful defense should overcome. Merger-produced efficiencies can generally be classified into scale economies and integration economies, although a specific efficiency may result from both. In the horizontal context, however, the primary concern lies with scale economies.

Scale economies involve the achievement of the minimal optimum size for firm operation.[92] Attainment of this minimum size reduces the average cost per unit of manufacturing and marketing a product and results in a cost advantage over "smaller" competitors.[93] The firm then has a competitive advantage over smaller rivals; it can undercut their selling prices and invade their markets or meet their price and gain a greater return per unit sold. Thus, firms below the optimum minimum size may combine to achieve a lower cost of production or marketing in order to equal or exceed the scale economies of competitors. Mergers of direct competitors, involving the combination of production facilities, distribution systems, research and development capabilities, and perhaps management, may provide particular opportunities for the attainment of economies of scale.[94]

Economies of integration occur when a firm integrates production, promotion, or distribution functions formerly performed outside the firm, and thus reduces the unit costs of doing business.[95] For example, a firm may decide that it is cheaper to distribute its product itself rather than through an independent middleman, or it may save by undertaking the manufacture of

---

92. Scherer, *supra* note 90, at 16-18.

93. F. SCHERER, *supra* note 66, at 81-84. Optimal scale or size occurs when size permits long run average total cost to be at the minimum possible. Minimal optimal scale reflects the smallest size at which the average total costs can be achieved. Note, *Economies of Scale: Weighing Operating Efficiency When Enforcing Antitrust Law*, 49 FORDHAM L. REV. 771, 775 (1981).

94. It is generally believed that scale economies are more likely to be realized in horizontal mergers than in vertical or conglomerate acquisitions. *See, e.g.*, Blair, *The Conglomerate Merger in Economics and Law*, 46 GEO. L.J. 672, 679-80 (1958); Turner, *supra* note 49, at 1317.

95. Williamson refers to these efficiencies as transactional economies since costs are saved in the manner in which a firm transacts its business. He asserts that "mergers for conventional scale-economy reasons are much less common than mergers for transactional-economy reasons." Williamson, *supra* note 26, at 723. *See also* Williamson, *The Economics of Antitrust: Transaction Cost Considerations*, 122 U. PA. L. REV. 1439, 1443 (1974).

supplies or the ownership of materials previously bought from others.

Vertical mergers, which may include, for instance, the acquisition by a producer of retail outlets or supply firms, are often motivated by perceived economies of integration.[96] Moreover, integration economies, while normally not of primary importance, may result, at least theoretically, from horizontal mergers. The combination achieved through a horizontal acquisition may do more than increase the size and productive capacity of a firm; it may also add new properties or attributes to the firm. For example, a strong research and development department may be added to a stagnant one. To the extent that innovative research and development lowers costs by streamlining the production, manufacture, or distribution of the firm's product, economies of integration will have resulted from the merger. The increased quality rather than the increased size of the combined research and development department would, in this instance, be responsible for the cost savings. Similarly, the acquisition of a struggling company by a healthy competitor may produce economies through the use of capital for improvement of the production facilities of the acquired firm. Again, the achievement of a minimal optimum size would not necessarily have produced the cost savings resulting from modernized equipment.[97]

Economies of scale and economies of integration, although distinct, may be intertwined, at least for the purpose of establishing an efficiency defense for some kinds of mergers. That is, as Areeda and Turner have pointed out, it may often be necessary to prove the existence of both to authenticate the defense.[98] Consideration of both types of economies appears most likely in vertical mergers, because the minimal optimum size for produc-

---

96. The very efficiencies sought and achieved by vertical integration have been viewed as anticompetitive because of the advantages achieved over nonintegrated rivals. *See, e.g.*, Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962); U.S. Steel Corp. v. FTC, 426 F.2d 592, 603 (6th Cir. 1970); *In re* Foremost Dairies, Inc., 60 F.T.C. 944, 1084 (1962). *See generally* P. STEINER, MERGERS: MOTIVES, EFFECTS, POLICIES 58-69 (1975); Dean & Gustus, *Vertical Integration and Section 7*, 40 N.Y.U. L. REV. 672 (1965).

97. That is, the efficiency achieved may or may not result from a scale economy. The "integration" of the two general types of economies in this context presents additional identification and measurement problems for the efficiency proponent. *But see infra* text accompanying note 102.

98. 4 P. AREEDA & D. TURNER, *supra* note 86, ¶ 948, at 172.

tion of component parts, distribution, or research and development may differ from the minimum size necessary for the efficient manufacture of the product itself. Acquisition of a component part manufacturer or independent distribution system by a manufacturer will not produce economies of scale, assuming differing minimal optimal sizes, unless significant economies of integration exist.[99] Nor will vertical integration of a component part plant with a principal manufacturing plant produce economies of scale absent the existence of economies of integration, because the cost of production will remain the same.[100] However, if economies of integration do exist, then the integration may produce economies of scale if the cost of production is reduced, because the minimal optimum size for the production of the entire product, component part included, has been attained.

As noted, economies of integration may result from horizontal mergers. The existence of economies of scale, however, does not normally appear to depend on the finding of economies of integration in such lateral firm combinations. For example, attainment of the minimal optimum plant size through the acquisition of a competitor is typically independent of the economies of integration that might be achieved through the integration of advanced manufacturing equipment owned by the acquired firm. Both an increase in quality through an advancement in technology and an increase in size may produce cost savings, that is, result in efficiencies, independently of each other. A company that has achieved a minimal optimum production size may acquire a competitor with an advanced research and development department solely to reduce costs through technological advancement. Of course, in some situations both types of economies may result; a firm may achieve both size economies and integration economies in research and development if the combination permits it to reach a minimal optimum size for R & D while also providing access to technological advances.[101]

99. *Id.* at 172-73.

100. The minimal optimum size of production of the component part or of the principal product is unaffected by the merger unless the integration of the manufacturing plants produces cost savings.

101. Ascertaining the scale economies and the integration economies likely to result from an acquisition that will both increase the size and provide technological advancement may present insurmountable measurement difficulties, particularly given that

The defendant in a horizontal merger case faced with the task of quantifying purported efficiency gains will typically focus on measuring increases in economies of scale flowing from the merger, since economies of scale appear to be the principal efficiencies gained from lateral acquisitions. The complications of measurement where economies of scale are dependent upon a gain in integration economies are avoided. In addition, a focus on scale economies enables the defendant to avoid quantifying integration economies at all, except in the rare instances in which integration gains may be sizeable enough to be outcome determinative.[102] Horizontal acquisitions may present the best opportunity, pragmatically, for an effective efficiency defense, at least to the extent that scale economies predominate and are more easily measurable than other kinds of efficiencies.[103]

Economies of scale can be achieved at the plant, multi-plant or firm, or specific product level.[104] Thus, the kinds of scale economies that arguably may result from horizontal combinations include plant scale economies,[105] and economies in distri-

---

the economy gains are typically prospective in nature. *See supra* notes 77-79 and accompanying text.

102. The ability to separate scale from integration economies avoids the difficult measurement problems which inure with integration economies and the added measurement problems that the combination of two types of efficiencies brings.

103. Diseconomies of scale, such as the inability of management to control a multiplant firm effectively, may also arise. At some point, diseconomies may outweigh economies of scale, or, theoretically, larger firm size would always produce lower unit costs; that is, bigger would always be more efficient.

104. Plant scale economies may occur where per unit production costs are lowered by the effective utilization of high volume machinery which spreads set-up costs over a larger production run and enables workers to specialize. Generally, larger plants incur lower unit costs because the size of the labor force and the amount of equipment or machinery does not increase proportionately with capacity.

At the firm or multi-plant level, scale economies may be realized for research and development, sale promotion, and product distribution because large fixed costs can be covered by a larger volume of sales. *See* Wentz, *Mobility Factors in Antitrust Cases: Assessing Market Power in Light of Conditions Affecting Entry and Fringe Expansion*, 80 MICH. L. REV. 1545, 1589 n.127 (1982); F. SCHERER, *supra* note 66, at 133-38. The cost of raising capital may also be lower for large firms, although the cost differential appears to be relatively insignificant. *See* F. SCHERER, A. BECKENSTEIN, E. KAUFER & R. MURPHY, THE ECONOMICS OF MULTI-PLANT OPERATION 287 (1975).

105. Plant specialization economies are a variant of plant scale economies and occur when a firm produces a range of products or product sizes rather than a single product. For example, a firm may have a plant with sufficient size to produce one product efficiently, but the plant may not be large enough to produce several products efficiently. A merger of two one-plant firms might make specialization economies possible. The economies thus achieved would be significant if competitors in the market typically of-

bution, procurement,[106] promotion, capital cost, research and development, and management.[107] Of course, more than one kind of scale economy may exist, leading to a possible aggregation argument—an efficiency proponent may argue that the merger achieved several different economies and that the economies cumulatively justify the acquisition, even though each economy taken alone might not support a defense.

VI. Proving an Efficiency Defense

Generally, a firm seeking to establish an efficiency defense must first establish the existence of premerger diseconomies to set the stage for proving an increase in efficiency.[108] That is, it must show that other firms in the market have economies of scale or other efficiencies not achieved by the premerger firms. It can prove new efficiencies simply by showing that an increase in size, in this case by merger, decreased its unit costs of production, thus enabling it to operate more efficiently. If, however, the court adopts the additional constraint that the efficiencies achieved must produce a more competitive market,[109] then proving efficiencies in this manner would be insufficient to support an efficiency defense. A dominant firm could establish new efficiencies by the same rationale; an increase in size would reduce its costs and enable it to become even more dominant.[110] Thus,

---

fered a complementary line of products. *See* 4 P. Areeda & D. Turner, *supra* note 86, ¶¶ 951-952, at 177-81.

106. Procurement economies could presumably include both the cost of obtaining needed supplies or materials and the cost of raising capital, here referred to as capital cost.

107. Here the line between scale and integration economies may sometimes be difficult to draw. The size of a firm may reflect the cost of using in-house professional or management services provided by accountants, lawyers, and the like. A large firm may thus make more efficient use of these services. But a merger which effects a replacement of inefficient management with more efficient management achieves integration rather than scale economies. In that situation the size of the merged firm is irrelevant; the economies are achieved through the replacement of old management brought about by the merger.

108. Firms that are already "efficient," that have achieved a minimal optimum size for operation, presumably cannot avail themselves of the defense.

109. *See supra* text accompanying notes 66-77.

110. However, Professor Scherer suggests that at some point an increase in size will no longer achieve additional cost savings. A firm's minimal optimum size identifies that point. *See* F. Scherer, *supra* note 66, at 84. This absolute use of minimal optimal size differs from the "comparative" use of minimal optimal size, used in this article to denote when a firm can achieve efficiencies which would tend to make the market more competi-

for purposes of establishing an efficiency defense, the firm should show the existence of efficiency disadvantages, for example with regard to economies of scale, of other market entrants.

The acceptability of an efficiency defense should rest on a showing that the merger will produce a more competitive market.[111] The proponent thus needs to demonstrate that the merger will produce a firm better able to compete and that the resulting firm's competitive enhancement will produce a more competitive market. A showing that other entrants have premerger cost or size advantages which are lessened or eliminated by the combination is then a necessary step for an efficiency defense. Relational diseconomies indicate the possibility that the merger will have a procompetitive effect on both the resulting firm and the market.[112]

Further, proof of premerger scale diseconomies must be required of both merging firms. A successful efficiency defense must establish that the combination produces a more efficient competitor whose enhanced competitive capabilities outweigh the elimination of competition between the merging companies. The joining of an already efficient firm (that is, a firm that has already achieved the minimal optimal scale extant in the market) to an inefficient small firm would not create the *additional* efficient competitor necessary to the defense.[113] An inefficient competitor might be eliminated, but a more efficient firm would not result, at least in relation to the rest of the market. No tradeoff could occur because the anticompetitive effect from the elimination of two direct competitors could not be offset.[114]

---

tive, i.e., when competing firms have cost advantages owing to their larger size. *See supra* text accompanying notes 92-95.

111. *See supra* text accompanying notes 57-64.

112. That is, comparison of the firm to the market is necessary to avoid the possibility that the merger will produce a more efficient dominant firm or otherwise result in a further concentration of the market. *See supra* text accompanying notes 69-71.

113. In contrast, the failing company defense requires proof that only one of the merging firms needs improvement. It is arguable that a merger between an already efficient firm and a small, inefficient firm that is not a failing company should be permitted to advance the efficiencies defense where merger is the only opportunity for the small firm to become competitively viable. *See* 4 P. AREEDA & D. TURNER, *supra* note 86, ¶ 961, at 196.

114. The tradeoff analysis assumes that the anticompetitive effects of the merger meet the statutory requirement that a substantial lessening of competition is likely to occur. If, without consideration of procompetitive economies, the substantiality test is not met by the plaintiff/government, no violation has occurred and efficiency considera-

As noted, the statutory design of section 7 favors internal expansion.[115] The legislative bias supports the position that, even if substantial economies result from an acquisition, those economies should not be considered relevant unless the defendant can show that the same efficiencies could not have been achieved by internal growth.[116] Similarly, the influence of efficiency gains may be diminished by the possibility that other mergers may be preferable. For example, it may be that a merger with a firm outside the inefficient firm's market, i.e., a nonhorizontal combination, producing a related product, would achieve the same economies as the challenged merger.[117] Less likely is the possibility that acquisition of a smaller firm in the market would yield the same economies of scale as the disputed combination.[118]

The possibility of preferable alternative mergers seems further to complicate judicial consideration of an efficiency defense. A related product combination might well achieve scale economies comparable to those achieved by the acquisition of a direct competitor, where, for example, product distribution systems or research and development are highly complementary. If alternative possible mergers are to be considered at all, the alternatives should be sharply limited to those that might match or exceed the *specific* economies claimed by the defendant. The cost of acquisition should also be comparable. These constraints eliminate the prospect of an argued relevance for largely dissimilar acquisitions, perhaps more costly, which might produce more but different efficiencies.[119] The problems of measuring integration

---

tions are rendered moot. *See supra* text accompanying notes 82-83.

115. *See supra* text accompanying notes 83-87.

116. *See also infra* text accompanying notes 125-27 concerning burden of proof and the extent to which internal expansion alternatives should be considered in the efficiency defense context.

117. *See* 4 P. Areeda & D. Turner, *supra* note 86, ¶ 961, at 197 n.3.

118. The acquisition of a firm smaller than that targeted would, of course, correspondingly reduce the anticompetitive effect of the merger by the market share differential of the targeted and smaller firm. But since economies of scale are related to firm size, such an alternate merger would fail to achieve the same economies unless that merger would achieve the firm's minimal optimum size in the relevant market. That is, if the acquisition of a smaller firm would grant the resulting firm the same scale economies as the major competitors, the target acquisition could be attacked on the grounds that the same efficiencies could be achieved by the elimination of a lesser competitor. The "tradeoff" analysis that this approach necessitates would undoubtedly be difficult to quantify.

119. Also avoided is judicial interference with corporate acquisition goals. A firm may acquire another to achieve specific efficiencies; judicial consideration of alternative

economies against scale economies or of comparing different kinds of scale economies are also avoided, and the rebuttal to the efficiency defense focuses only on realistic alternative acquisitions. Further, alternative acquisitions that are preferable from an efficiency perspective but which are not feasible alternatives for other reasons should not be relevant, as the obstacles to acquisition would preclude the efficiencies from ever being realized. That type of comparison is thus merely fanciful and is not pertinent to the efficiency defense.

The use of only product-related, nonmarket alternative acquisitions that match the specific economies of the challenged merger raises an additional burden of proof question and complicates resolution of the efficiency defense even further. Assuming that the burden of proof in establishing the defense lies with the defendant, does this burden include establishing that no feasible merger alternatives exist, or should the burden shift to the complainant once the defendant has shown that efficiency gains outweigh competitive losses? This question is further confused because the speculative, anticipated economy gains resulting from the merger must be compared to the speculative, anticipated economy gains from another speculative combination.[120] Thus, the preferable merger argument introduces added uncertainties into the decisional equation.

The burden of proof concerning preferable mergers should be with the complainant both for policy and pragmatic reasons. It is much simpler for the complainant to establish the existence of a preferable alternative than for the defendant to show that no reasonable, preferable alternatives exist. Further, if preferences are pinpointed by the complainant, the defendant, to retain its efficiency defense, would be forced to confront the assertion that the proposed alternative would produce the same or similar economies without the concomitant lessening of competition.[121] Alternatively, the defendant could attempt to demonstrate the nonfeasibility of the "preferable" merger as a viable substitute acquisition.[122]

---

mergers that would result in a similar quantity but a different quality of efficiencies would effectively transfer corporate decisionmaking to the court.

120. Mergers are typically challenged prior to culmination or, if after culmination, before any definitive proof of economies is demonstrable.

121. *See supra* note 119 and accompanying text.

122. *See supra* text accompanying notes 119-20.

From a policy perspective, requiring the efficiency proponent to show no preferable alternatives as part of its burden of persuasion in establishing the efficiency defense would seem to vitiate the defense, even though the proponent had shown the merger to be procompetitive.[123] The statute does not require such a limited rendering of the defense where the economies outweigh the anticompetitive effects of the acquisition.[124]

Similar complications arise if the possibility of internal expansion is included in the efficiency calculus. Conjecture about economies that might result from internal expansion is comparable to the prospective assertion that economies will arise from the combination. The comparison of prospective scale economies should be subject to the prior requirement that internal expansion be shown to be a viable alternative to acquisition.[125]

The prospect of scale economies through internal growth is an attractive one; the firm becomes more efficient and thus more competitive without the market's loss of a competitor. And the bias of the statute in favor of internal growth is evident.[126] But does the statutory bias require a court to examine internal growth possibilities if an efficiency defense is otherwise established? If the proponent can demonstrate that likely scale economy gains exceed the competitive loss resulting from the elimination of a market entrant, that is, that the merger is on balance procompetitive, must the efficiency proponent further establish that no even more procompetitive alternative, internal expansion, exists?

Assuming that internal expansion considerations become part of the efficiency calculus, burden of proof issues again arise. As with the preferable alternative merger issue, placing the burden of proof on the complainant to establish the viability and

123. If the efficiency proponent has established that, on balance, the acquisition is not likely to substantially lessen competition, it serves no purpose to require the proponent additionally to show that no other, more procompetitive options exist.

124. Section 7 requires a finding of a likelihood of substantial lessening of competition. It does not require that a merger interfere with competition as little as possible. An efficiency defense should not fail because of possible alternative acquisitions except in borderline cases in which it is not certain that the gains in efficiency are sufficient to rebut the anticompetitive aspects of the merger.

125. That is, the same concerns here apply as in the preferable alternative merger situation. *See supra* text accompanying notes 119-20.

126. *See supra* text accompanying notes 83-84.

propriety of internal expansion seems justified, assuming that the defendant has successfully shown the purported acquisition to be procompetitive. To place the burden on the defendant to demonstrate the nonfeasibility or impropriety of internal expansion would again unduly limit the scope of the efficiency defense and would increase the ludicrous possibility that a merger which is demonstrably procompetitive might be enjoined under section 7 simply because it is not the most procompetitive action possible.[127] The decisions that have pointed to the prospect of internal expansion have typically done so in the context of reviewing an anticompetitive merger.[128] Those cases do not necessarily establish a precedent for a combination which is, through consideration of the efficiency defense, shown to be pro-competitive.

VII. Qualitative Efficiencies

Leaving questions of alternative modes of expansion aside, some judicially usable method of comparing efficiency gains with increases in market share must be derived if the defense is to have any real validity. Professor Williamson has developed a model, labeled the Naive Tradeoff Model,[129] which argues that a small gain in efficiency offsets a relatively large gain in market power. He concludes that even a small drop in costs will generally yield a net efficiency gain, thus creating a presumption that

---

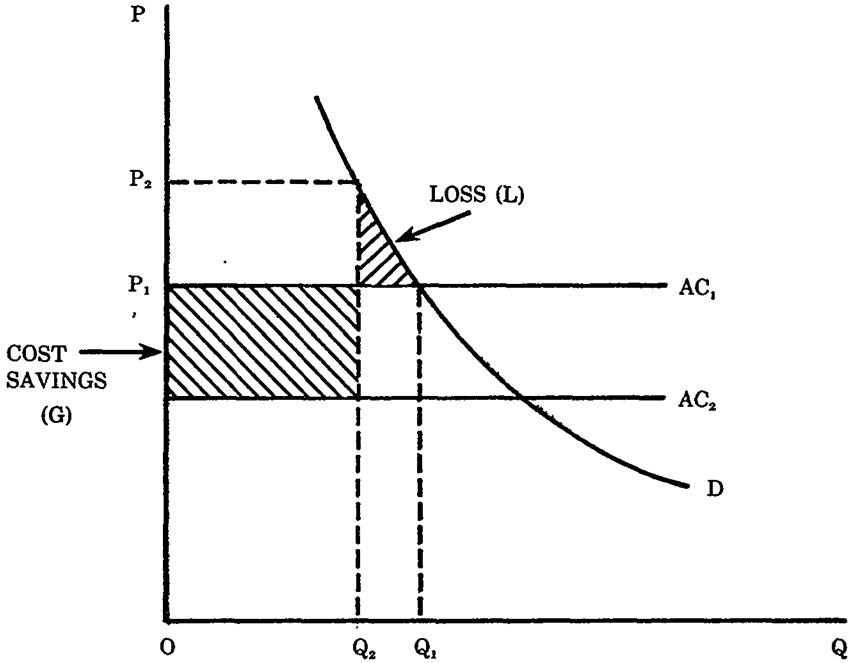
127. It can be argued that the burden of persuasion should remain with the efficiency proponent for two reasons: (1) the evidence concerning internal growth is within its direct control, and (2) the statutory bias favoring internal expansion counsels for requiring a defendant asserting an efficiency defense to show the lack of internal growth possibilities that would equal the economies gained through merger. But this argument fails to take into account the absolute nature of a successful efficiencies argument. If successful, the efficiency proponent has already shown that there is not a likely substantial lessening of competition. To require it to do more serves no purpose and is not required by the statute.

128. *See, e.g.*, Ford Motor Co. v. United States, 405 U.S. 562 (1972); United States v. Aluminum Co. of America (Rome Cable), 377 U.S. 271 (1964).

129. The model is illustrated by the following figure:

the merger is beneficial.[130] Of course, the Williamson presumption is not without controversy;[131] furthermore, his model does

---



The model assumes that the premerger market has only two firms and that they have identical costs. AC_1 is the combined average premerger cost of the firms while AC_2 reflects the postmerger cost. P_1 and Q_1 are the premerger price and quantity, P_2 and Q_2 the postmerger levels. Thus, the hypothetical merger has both lowered costs and raised prices. The shaded area L is said to represent the deadweight loss from the increased market power while G represents the gain from increased efficiency. Thus, if those assertions are correct, the merger would produce a net benefit if G exceeds L, despite increased price, decreased output, and increased profits to the firm. If L exceeds G the net competitive effect is negative. *See* Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18, 21-23 (1968); Williamson, *Economies as an Antitrust Defense: Correction and Reply*, 58 AM. ECON. REV. 1372 (1969); Williamson, *Allocative Efficiency and the Limits of Antitrust*, 59 AM. ECON. REV. 105 (1969); Williamson, *supra* note 26. *See also* Muris, *supra* note 19, at 384-93.

130. Williamson argues that the efficiency savings would be realized over the entire period of production of the goods, while the loss comes only from sales not made as a result of the increase in price. *See* Williamson, *supra* note 26, at 709; Muris, *supra* note 19, at 386-99.

131. Posner argues that Williamson's analysis is incomplete because the expected profits from the merger will generate an equal level of costs through premerger jostling for acquisitions and additional postmerger competition (e.g., new services, etc.) which will use up merger profits. That is, decreased output is not the only loss resulting from mergers. Posner concludes that the shaded area L in the Williamson model does not accurately reflect merger loss. Posner, *The Social Costs of Monopoly and Regulation*, 83

not solve the problem of measuring actual efficiencies in a specific acquisition. It is rather a model which seeks to demonstrate that the tradeoff of cost reduction for market power is generally procompetitive if nontrivial economies are achieved.

Actual measurement of scale economies, although depending on the type of economy involved,[132] has generally involved use of empirical studies. The four methods most commonly used by economists include statistical cost studies,[133] engineering studies,[134] profitability studies,[135] and survivorship studies.[136]

J. POL. ECON. 807, 821 (1975). *But cf.* Williamson, *supra* note 26, at 713-23; Muris, *supra* note 19, at 392 n.41. *See also* Jackson, *supra* note 26 (Williamson's presumption not valid because fails to account for effects of premerger market power). Further, if the Naive Tradeoff Model accurately reflects the quantity loss and price increase of the hypothetical merger, it would seem to benefit the merging firms at the expense of consumers (who are paying higher prices while the firm absorbs lower costs). Such a result would be expected where a duopoly becomes a monopoly and would surely violate section 7 since that statute speaks only to competition and not to efficiency. The Naive Tradeoff Model eliminates competition even if it does increase efficiency. But the real difficulty with the theory lies with measuring the allocative efficiency effects of a merger in an oligopolistic market (the merger must produce efficiency increases for the market) which can be used to offset the loss from price increases and output losses.

132. Obviously, technical efficiencies such as plant or multiplant scale economies are easier to quantify than nontechnical efficiencies such as improved research and development or management.

133. Statistical cost studies rely on cost accountants' data on cost, outputs, and other characteristics of plants of varying size. Standard statistical techniques are used to estimate cost-scale relationships. Such studies suffer from unavailable or inadequate cost data as well as differing statistical inferences that are drawn from the data. The utility of such a measurement device in litigation would appear minimal given the scarcity of reliable cost information generally. *See* ABA ANTITRUST SECTION, MERGER STANDARDS UNDER U.S. ANTITRUST LAWS 112-13 (Monograph No. 7, 1981); McGee, *supra* note 90, at 65-68; Note, *supra* note 93, at 781.

134. Engineering studies make use of engineering cost estimates of industrial engineers to measure the efficiency of various new plants or technical processes. The difficulties of accounting variances are avoided and measurement of each level of production is more direct. However, nontechnical efficiencies such as research, management, and entrepreneurial ability are excluded. In addition, the dynamics of technological change are ignored and biases upon the type and valuation of costs considered mitigate the value of such methods. *See* ABA ANTITRUST SECTION, *supra* note 133, at 111-12; F. SCHERER, *supra* note 90, at 19; McGee, *supra* note 90, at 68-80; Note, *supra* note 93, at 782.

135. Profitability studies attempt to measure the profit levels of whole firms, typically by use of statistical or accounting methods. The vagaries of methodologies used may produce different conclusions; further, such studies do not seem to isolate profitability with efficiencies. *See, e.g.*, J. BLAIR, ECONOMIC CONCENTRATION: STRUCTURE, BEHAVIOR AND PUBLIC POLICY 177 (1972) (profits reflect monopoly power as well as economies). *Cf.* Demsetz, *Industry Structure, Market Rivalry, and Public Policy*, 16 J.L. & ECON. 1 (1973); W. SHEPHERD, MARKET POWER AND ECONOMIC WELFARE 26-34 (1970) (positive relationships found between market share and profitability).

136. The survivorship technique classifies firms by size and observes the success

Statistical cost studies and engineering studies are more precise and more suitable for antitrust purposes since they can be utilized to focus on the actual cost savings of technical processes achieved through merger.[137] Both methods tend to ignore nontechnical efficiencies and may suffer from inadequate or nonexistent data, particularly in the section 7 context where the efficiency gains are often prospective in nature.[138]

Even assuming that empirical evidence of cost savings is available and reliable, courts may be disinclined to grant much weight to the proof because of pragmatic difficulties involved in applying the tradeoff analysis. That is, the comparison of cost savings with increases in market share may provide the courts with no answer about the overall competitive effect of the merger.[139] The ultimate question is what amount of efficiency gain will offset what amount of increased market power.[140] Accurate measurement alone cannot provide an answer unless it can be translated into market power terms.[141]

Professor Williamson's Naive Tradeoff Model supports a qualitative approach to the tradeoff analysis. Although he does

---

rates of the various classifications. If market shares of certain sized firms increase, optimal scale is inferred. Similarly, excess or suboptimal scale is inferred from declining market shares. The inferences are problematic, however, because factors other than economies of scale may cause or contribute to firm growth or decline. *See* G. STIGLER, THE ORGANIZATION OF INDUSTRY 73 (1968). *Cf.* Bank, *Survival Ability as a Test of Efficiency,* 59 AM. ECON. REV. 99 (1969); Shepherd, *What Does the Survivor Technique Show About Economies of Scale?,* 34 S. ECON. J. 113 (1967).

137. *See* Note, *supra* note 93, at 784.

138. *See* McGee, *supra* note 90, at 66; Scherer, *supra* note 90, at 18; Smith, *Survey of the Empirical Evidence on Economies of Scale,* in BUSINESS CONCENTRATION AND PRICE POLICY 213, 216, 221 (1955).

139. *See* Note, *"Substantially to Lessen Competition . . .": Current Problems of Horizontal Mergers,* 68 YALE L.J. 1627, 1662 (1959) (balancing efficiency with market power requires court to deal with phenomena which cannot usefully be compared).

140. *See supra* text accompanying notes 78-79.

141. Professor Williamson's conclusions, derived from his Naive Tradeoff Model, attempt just that. He concludes that a small efficiency increase typically overcomes a relatively larger gain in market power. The finding is supported by measuring the loss to society only in terms of decreased units of output, while measuring gain in terms of the entire output of the resulting firm. Thus, the number of post-merger units still produced will exceed the drop in output resulting from an increase in market power, unless the price increase is great or demand is very elastic (small price increase causes a substantial decrease in demand). *See* Williamson, *supra* note 26, at 709; Muris, *supra* note 19, at 386. Williamson's loss analysis is highly controversial and not yet widely accepted. *See supra* note 131. *See also* R. POSNER & F. EASTERBROOK, ANTITRUST CASES, ECONOMIC NOTES, AND OTHER MATERIALS 920 (2d ed. 1981).

not urge that quantitative methods can currently be used in litigation,[142] the presumption derived from his model that a small gain in efficiency will generally outweigh larger increases in market power leads to the conclusion that efficiency gains should not be ignored, even if accurate measurement is not feasible.[143]

Irrespective of the validity of the Williamson presumption, a qualitative approach to the efficiency defense is preferable to a quantitative approach, if only by default. It is unlikely that present measurement techniques, involving the ascertainment of marginal cost differentials,[144] can supply sufficiently conclusive data to overcome a presumption of illegality created by market foreclosure evidence. The defense requires a computation of marginal cost at actual levels of production as well as a computation of marginal cost at hypothetical (in many cases) production levels under a firm that has yet to do business (subsequent to the merger).[145]

Further, courts tend to be more pragmatic than theoretical. The quantitative data is not likely to be conclusive given the problems of measurement and the likelihood of conflicting expert testimony. In the horizontal context, the uncertain quantitative proof must then be measured against direct, hard evidence of anticompetitive effect caused by the elimination of a market entrant and the concomitant increase in market share to the new firm. Simply put, the tradeoff analysis is likely to be one-sided, with the efficiency proponent unlikely to meet its burden of proof through quantitative means. The difficulties experienced in establishing a cost justification defense to price discrimination allegations under the Robinson-Patman Act should be instructive here.[146]

---

142. *See* Williamson, *supra* note 26, at 701-03, 728.

143. *Id.* at 728, 731.

144. Marginal cost is the cost of an additional unit of output or, stated differently, the change in total cost divided by the change in output. *See* P. DOOLEY, ELEMENTARY PRICE THEORY 161 (1967); G. GARB, INTRODUCTION TO MICROECONOMIC THEORY 95 (1968). Thus, cost savings generated by a merger are ascertained by a comparison of before and after marginal costs.

145. *See* R. POSNER & F. EASTERBROOK, *supra* note 141, at 921.

146. *See, e.g.*, United States v. Borden Co., 370 U.S. 460 (1962); Automatic Canteen Co. v. FTC, 346 U.S. 61, 68, 79 (1953). *But see* Morton v. National Dairy Prods. Corp., 414 F.2d 403 (3d Cir. 1969), *cert. denied*, 396 U.S. 1006 (1970); American Motors Corp. v. FTC, 384 F.2d 247 (6th Cir. 1967), *cert. denied*, 390 U.S. 1012 (1968); FTC v. Standard Motor Prods., Inc., 371 F.2d 613 (2d Cir. 1967).

But the difficulty of accurate measurement does not necessitate exclusion of the defense. Section 7 permits and perhaps requires consideration of the defense,[147] and although some case law may appear to preclude it, *General Dynamics* and its progeny support the use of efficiency considerations.[148] Further, the difficulty of comparing dissimilar pro- and anticompetitive effects has not barred application of a rule of reason analysis in other areas of antitrust.[149] The courts are simply required to make a judgment as to which effect predominates.[150]

---

147. *See supra* text accompanying notes 13-22.

148. *See supra* text accompanying notes 50-58.

149. The classic statement of the rule of reason continues to be the oft-quoted passage of Justice Brandeis in Chicago Board of Trade v. United States, 246 U.S. 231, 238 (1918):

> The true test of legality is whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition. To determine that question the court must ordinarily consider the facts peculiar to the business in which the restraint is applied; its condition before and after the restraint was imposed; the nature of the restraint and its effect, actual or probable. The history of the restraint, the evil believed to exist, the reason for adopting the particular remedy, the purpose or end sought to be attained, are all relevant facts. This is not because a good intention will save an otherwise objectionable regulation or the reverse; but because knowledge of intent may help the court to interpret facts and to predict consequences.

See also Appalachian Coals, Inc. v. United States, 288 U.S. 344 (1933). Recent Supreme Court pronouncements of the rule of reason have focused on the overall effect of the alleged restraint, governed through a vague, nonscientific balancing of likely anticompetitive and procompetitive effects resulting from the practice. *See, e.g.*, Broadcast Music, Inc. v. Columbia Broadcasting System, 441 U.S. 1 (1979); National Soc'y of Eng'rs v. United States, 435 U.S. 679 (1978); Continental T.V., Inc. v. GTE Sylvania, Inc., 433 U.S. 36 (1977). While it is recognized that this methodology is intrinsically imprecise, the continuing adherence to the rule of reason approach stems from judicial recognition that, for restraints not inherently pernicious, procompetitive results, generally through efficiency gains, may predominate. *See id.* at 54-56; United States v. United States Gypsum Co., 438 U.S. 422, 441 n. 16 (1978).

150. Professor Sullivan has characterized the problem facing courts applying the rule of reason as follows:

> The final question is whether, on balance, the restriction imposed substantially impedes competition. Where, as here, there seem to be legitimate purposes and where effects are both adverse and beneficial, the calculus of decision entails discrimination applied to rather finely shaded gradients. Let us state outright that if lawyers and judges have scanty qualifications for performing this function, economists have no better ones. With respect to any given practice applied in any given market situation, theory and empirical study may be able to suggest and perhaps validate various effects as either helpful or harmful to competition or both. But neither theoretical nor empirical material can devise a single yardstick against which to measure them; this matter must be referred to the arts rather than the sciences of judgement. Having identified purposes and effects one looks at length at each of them. Looking upon them openly and

Frequently, the only procompetitive aspects of non-merger restraints urged in a rule of reason context trace directly to efficiency gains.[151] For example, the balancing required by the Court in *Continental T.V., Inc. v. GTE Sylvania, Inc.*[152] entails a tradeoff analysis that is essentally qualitative. The Court recognized that vertically imposed customer or territorial limitations restrict intrabrand competition but may enhance interbrand competition because of efficiency gains in product distribution. The Court, however, did not attempt to measure the efficiency gains, although on the other side, the loss to intrabrand competition was readily ascertainable.[153] Although the Court adopted the rule of reason, it failed to provide any criteria for its application. Thus, while the qualitative procompetitive value of efficiency gains was recognized, the necessity of quantifying the gain was not addressed.

The measurement of efficiency gains (which should be the initial step) cannot be precise with respect to either horizontal mergers or vertical non-price restraints. Lower federal courts applying *Sylvania* have made qualitative judgments about interbrand benefits and engaged in qualitative judgments about the amount of limitation of intrabrand competition and the degree of enhancement of interbrand competition.[154] The requirement

---

> honestly one must call forth his best and most purposeful intuition. One must know and say what he can about each and come to some sense about the weight of each and where the balance lies; one can do no more.

L. SULLIVAN, *supra* note 22, at 188.

151. *See, e.g.*, United States v. United States Gypsum Co., 438 U.S. 422, 441 n.16 (1978); Continental T.V., Inc. v. GTE Sylvania, Inc., 433 U.S. 36 (1977); *supra* text accompanying notes 31-35. *See also* Appalachian Coals, Inc. v. United States, 288 U.S. 344 (1933).

152. 436 U.S. 36 (1977). *See also* Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320, 334 (1961) (rule of reason analysis for exclusive dealing arrangements because of potential lower costs for consumers).

153. The significance of the elimination or reduction of intrabrand competition is dependent on the market share held by the firm in question. The greater that firm's market share the more suspect are vertically imposed customer or territorial restrictions, particularly since such restraints eliminate both price and non-price competition among distributors of that firm's product. *See generally* Strasser, *supra* note 36. The elimination of all forms of competition through vertical non-price restraints parallels the effect of a horizontal merger where all competition between the acquired and acquiring firm ceases because of the combination.

154. The district court on remand in *Sylvania* did just that in ruling the restraint to be reasonable. Continental T.V., Inc. v. GTE Sylvania, Inc., 461 F. Supp. 1046 (N.D. Colo. 1978). *See also, e.g.*, Graphic Prods. Distribs., Inc. v. Itelc Corp., 717 F.2d 1560 (11th Cir. 1983); Eiberger v. Sony Corp. of America, 622 F.2d 1068 (2d Cir. 1980); Del

of more exact quantification would erode the utility of the rule of reason by placing an excessive burden of doubtful value, given the difficulty in the measurement of efficiencies generally,[155] upon the party asserting efficiencies as a procompetitive justification.

The enhancement of interbrand competition through efficiencies (lower costs) in product distribution presents the same allocative efficiency issue as does an efficiency engendering horizontal merger. Both cases present the difficulty of determining how a firm's lower costs are going to impact upon the relevant market. That issue is typically resolved by looking at the market position of the firm in question.[156] The resulting benefit, if any, is then weighed against the anticompetitive effect of the conduct. Once again the parallel between vertical non-price restraints and horizontal mergers is striking. The anticompetitive loss in both is horizontal, in a merger through the loss of a competitor and in a vertical restraint through the loss of rivals selling the same product to the same customers or in the same territories. The benefit in either case is to interbrand competition in the relevant market.[157] Thus, efficiency considerations in horizontal mergers and vertical non-price restraints pose no real analytical differences under the rule of reason.

The utility of an efficiencies defense in merger cases, however, appears to be limited to those cases with marginal anticompetitive effects. It is arguable that a significant number of mergers achieving efficiencies result in a market foreclosure too insignificant to be actionable under section 7. Where both firms exhibit diseconomies vis-à-vis other market entrants prior to the merger[158] it appears unlikely that the market foreclosure from the acquisition will increase the new firm's market power substantially enough to warrant a section 7 challenge.[159]

Rio Distrib., Inc. v. Adolph Coors Co., 589 F.2d 176 (5th cir.), *cert. denied*, 444 U.S. 841 (1979).

155. *See supra* notes 132-38 and accompanying text.

156. *See supra* text accompanying notes 111-14.

157. If a merger produces efficiencies which create a more competitive market, interbrand competition is enhanced just as where efficiencies achieved in distribution because of vertically imposed restraints promote competition among different brands.

158. *See supra* text accompanying notes 112-14.

159. Merging firms that individually suffer from diseconomies vis-à-vis existing firms in the market are likely to be "price followers." A merger that overcomes the disadvantage promotes competition by increasing the number of firms that determine market

The market dependence of the efficiency defense further limits its applicability. If the merged firm surpasses the existing minimal optimal scale in the market by achieving cost savings below that of any of its competitors, the position of the resulting firm in the market must be carefully scrutinized to avoid sanctioning a dominant firm merger through the efficiency defense. Achievement of a "new" minimal optimal scale is procompetitive only if the market increase enables the merged firm to achieve some degree of market parity, as opposed to market dominance.

Internal growth opportunities or the possibility of preferable alternative mergers would further vitiate the defense where substantial market foreclosure occurs and the court is not sanguine that a more competitive alternative is not available.[160] In addition, substantial market foreclosures would probably doom the defense given the prospective nature of efficiency claims as well as the proof problems described above. If an acquisition appears blatantly anticompetitive, a court faced with comparing apples and oranges will be loath to sustain an efficiency defense no matter how nontrivial the economies gained and no matter if the economies achieved equalize the firm with other market entrants.

Thus, the defense appears pragmatically useful only in those cases involving marginal anticompetitive effects. In those cases qualitative proof of efficiencies, perhaps bolstered by quantitative measurements, may be outcome determinative. Proof of the likely existence and probable magnitude[161] of new efficiencies would often offset weak evidence of anticompetitive effect. For example, a merger that, using the Herfindahl-Hirschman index of market concentration,[162] increases concentration to

---

price. Thus, the assumption often derived is that the efficiency defense is unnecessary in that situation because no presumptive illegality can be established. *See* 4 P. AREEDA & D. TURNER, *supra* note 86, ¶ 940; Edwards, *supra* note 17, at 1560-64; Wentz, *supra* note 104, at 1548 n.8.

160. *See supra* text accompanying notes 116-24.

161. *See* Muris, *supra* note 19, at 422.

162. The Herfindahl-Hirschman index is calculated by summing the squares of the individual market shares of all the firms in the relevant market. The index thus ranges from 10,000 in the case of a pure monopoly to an atomistic market number approaching zero. One advantage of the index is that it reflects the degree of market concentration of the entire market, including the less dominant entrants. The four-firm concentration ratio adopted in the 1968 Merger Guidelines did not. *See* U.S. Dep't of Justice Merger Guidelines (May 30, 1968). The new index does give proportionately greater weight to

a point where the Justice Department's new Merger Guidelines are indefinite about the propriety of a challenge to the acquisition, may present opportunities for the defense if the Department does bring suit.[163]

While these parameters are admittedly nonspecific, they are in accord with the more generalized rule of reason analysis prevalent in other antitrust contexts. That is, if the anticompetitive effect of a given restraint is substantial, the restraint is very likely to be ruled unreasonable, regardless of the procompetitive arguments put forth. Recent rule of reason pronouncements appear to focus on the finding of any substantial anticompetitive effect as the sole prerequisite to establishing unreasonableness.[164] The efficiency tradeoff analysis would operate similarly. Dependable proof of nontrivial economies would normally fail to convince a court to permit a merger resulting in substantial market foreclosure and increasing concentration. But that observa-

---

the large firms' market shares (through the mathematics of squaring the shares). *See* U.S. Dep't of Justice Merger Guidelines, 47 Fed. Reg. 28,493, 28,497 (1982). *See also* Calkins, *The New Merger Guidelines and the Herfindahl-Hirschman Index*, 71 CALIF. L. REV. 402 (1983); Miller, *Market Structure Variable: An Exposition for Antitrust Practitioners*, 27 ANTITRUST BULL. 593 (1982); Note, *An Economic Analysis of the 1982 Justice Department Guidelines for Horizontal Mergers*, 67 MINN. L. REV. 749 (1983).

163. Under the Merger Guidelines, two factors are crucial with respect to the Herfindahl-Hirschman index. The first is the actual market concentration of the relevant market as measured by the index. Three broad categories are adopted: (1) index below 1000 (unconcentrated); (2) index between 1000 and 1800 (moderately concentrated); and (3) index above 1800 (highly concentrated). The second factor relates to the increase in the index caused by a merger. For example, in the moderately concentrated category (index between 1000 and 1800) the guidelines state that the Department is more likely than not to challenge mergers that produce an index increase of more than 100 points. U.S. Dep't of Justice Merger Guidelines, 47 Fed. Reg. 28,497 (1982). Thus, where a challenge in this area is uncertain (e.g., index near 1000 and increase of 100), efficiency gains should become an important factor. This, of course, suggests that the efficiency "defense" should be utilized as an important factor in the prosecutorial discretion context as well as in cases actually tried.

An example of the last point arises from the recent purchase by SCM Corporation of two titanium dioxide plants owned by Gulf and Western Industries, Inc. *See supra* note 10. Under the Herfindahl-Hirschman Index the overall market would rate as highly concentrated (over 1800). The acquisition increased concentration by more than 100 points, making it likely to be challenged under the Justice Department Merger Guidelines. SCM argued that the acquisition would be up to 15% more efficient than internal expansion. FTC economists believed 10% more accurate and FTC accountants thought that the efficiency gain could be as low as 1%. The Director of the Bureau of Competition refused to challenge the merger and the Commissioners split 2 to 2 on overturning his decision. *See* 45 ANTITRUST & TRADE REG. REP. 751 (Nov. 10, 1983).

164. The modern version of the rule of reason specifically supports this statement. *See* National Soc'y of Professional Eng'rs v. United States, 435 U.S. 679, 690-92 (1978).

tion should not obscure the viability of the defense to merger defendants where the increase in market power is of questionable section 7 concern.

CONCLUSION

Neither Congress nor the courts have determined that mergers between competitors are so inherently anticompetitive as to warrant per se illegality. As with some other types of collective action, horizontal mergers can cause procompetitive efficiencies. Thus, treatment of merger-engendered efficiencies should be considered under the rule of reason just as efficiencies are with respect to other non-per se restraints. Although efficiency gains are likely to be decisive in few merger cases, that does not support their automatic exclusion in an area in which anticompetitive effects cannot be assumed but must be analyzed on a case-by-case basis.

The viability of the defense ultimately depends on the willingness of courts to make qualitative judgments about prospective efficiency gains measured against the likely anticompetitive effects of increased market shares. Although the contrast of these counterbalancing factors is acute and may suggest "intractability," their resolution requires nothing more of the judiciary than does the rule of reason in antitrust proceedings generally.