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Economic Analysis in Health Care Antitrust

Michael G. Vita

James Langenfeld

Paul Pautler

Laura Miller

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ECONOMIC ANALYSIS IN HEALTH CARE ANTITRUST

*Michael G. Vita, James Langenfeld, Paul Pautler, and Laura Miller**

TABLE OF CONTENTS

I.	Health Care Mergers and Acquisitions	74
	A. Economic Models	74
	1. The Dominant Firm Model	75
	2. The Collusion Model	76
	3. Market Power	78
	B. Antitrust Markets and the Department of Justice Merger Guidelines	79
	1. Product Market	80
	a. The “Cluster of Services” Approach	80
	b. Supply-Side Substitutes for Acute Care Hospitals ..	86
	2. Geographic Market Analysis	86
	a. Geographic Market Under the Merger Guidelines ..	87
	b. Market Definition—Summary	92
	C. Entry Conditions	92
	D. Efficiencies	96
	1. Economies of Scale	97
	2. Economies of Scope	100
	3. Efficiencies—Conclusion	100
	E. Conclusion	101
II.	Anticompetitive Agreements Among Competitors	101
	A. Alternative Legal Standards for Agreements Among Competitors	102
	B. The Economics of Agreements Among Competitors	104
	C. The Need for a More Simple Framework to Analyze Agreements Among Competitors	106
	D. FTC’s <i>Massachusetts Board</i> Approach to Agreements Among Competitors	109
	E. Conclusion	114

* Bureau of Economics, Federal Trade Commission. This article reflects the opinions of the authors and is not intended to represent the position of the Federal Trade Commission or the views of any individual Commissioner.

The Federal Trade Commission (FTC or Commission) has been very active in enforcing antitrust laws in the health care field for the past two decades. The staff has investigated a wide variety of cases covering a broad range of restrictions on competition. These cases can be divided into three basic types of cases in health care: (1) mergers and acquisitions, (2) horizontal restraints cases or agreements among competitors, and (3) input market monopolization cases, such as hospital privileges cases. The Commission relies on both legal and economic analysis in all of these cases. As Chairman Steiger of the Federal Trade Commission has stated, antitrust policy has been "increasingly reshaped by analysis based on economic theory."¹ This article attempts to explain the economic analysis used in antitrust enforcement as applied to the first two of the three types of health care cases. Section I presents the basic economic framework that is used to assess the competitive implications of health care mergers and acquisitions. Section II describes the analysis applied to other agreements among competitors in the health care field and briefly explains how this analysis differs in other health care cases.

I. HEALTH CARE MERGERS AND ACQUISITIONS

Health care mergers have accounted for a large portion of antitrust enforcement activity. In 1981 the Commission issued its first hospital merger complaint in *American Medical International, Inc.*² Since that time, several other hospital mergers have been challenged.³ Health care providers that have been investigated include both general acute care hospitals, as well as more specialized institutions, such as psychiatric or rehabilitation hospitals or nursing homes. Other health care providers potentially subject to investigation in an acquisition may include outpatient or ambulatory surgery centers, physician practices, and vertically integrated insurer-providers, such as health maintenance organizations (HMOs). Because most of the acquisitions investigated by the Commission have been hospital mergers, what follows is a general description of the economic analysis involved in a hospital merger.

A. Economic Models

The FTC's Bureau of Economics has traditionally used two basic classes

1. J. Steiger, Chairman of the Federal Trade Commission, Remarks on the New Directions in Antitrust Enforcement Before National Economic Research Associates (July 5, 1990).

2. 104 F.T.C. 1 (1984).

3. Hospital Corp. of Am., 106 F.T.C. 298 (1985); Hospital Corp. of Am., 106 F.T.C. 361 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987); Reading Hosp., 55 Fed. Reg. 15,290 (FTC consent order No. C-3284 issued Apr. 10, 1990).

of economic models to explain equilibrium price determination in markets with a small number of sellers: the "dominant firm" models and the "collusion" models. The dominant firm models analyze the behavior of a "large" firm in the presence of a competitive fringe of price takers.⁴ The collusion models⁵ analyze the behavior of a small number of relatively large firms, each too small to exercise market power unilaterally, but which collectively are large enough that anticompetitive behavior may be possible if the firms take into account the likely actions of rivals. The analysis of hospital mergers may apply to both sets of models. Some recent mergers have taken place in small, geographically isolated communities where the number of hospitals is quite small (e.g., two or three). In these instances, the merged entity will possibly be in a position to exercise market power unilaterally. In other cases,⁶ the number of hospitals in the relevant geographic market, even after the merger, may be too high for the merging hospitals to raise prices on their own. Even in these instances, however, there is a real possibility that the number of competitors is small enough to create cooperative behavior.⁷

1. *The Dominant Firm Model*

In the dominant firm model, a single firm may be able to raise its price unilaterally and consequently increase its profits. The ability of an individ-

4. In one early hospital merger case, *United States v. Hospital Affiliates Int'l, Inc.*, 1980-81 Trade Cas. (CCH) ¶ 63,721 (E.D. La. Oct. 9, 1980), the court ruled that HAI's post-transaction market share of 72.9% would "approach[] monopoly proportions" and concluded that such a share would have adverse competitive effects. *Id.* at 77,853 (preliminary injunction granted based upon "a reasonable probability that the Government could prevail in its effort to show that Section 7 of the Clayton Act would be violated" (citation omitted)).

5. Economists have developed a large number of models that attempt to determine the price and output effects of market structures characterized by a small number of sellers. These models normally predict an inverse relationship between prices and the number of sellers, holding other factors constant. This relationship derives from "an increased awareness of significant mutual interdependence among rivals as well as from the higher probability of detection and punishment of 'cheaters' in an oligopoly setting." Pautler, *A Review of the Economic Basis for Broad-Based Horizontal-Merger Policy*, 28 ANTITRUST BULL. 571, 574 (1983). Under current antitrust standards, however, a high post-merger level of concentration is regarded more as a "necessary" than a "sufficient" condition to trigger an enforcement action. The typical antitrust inquiry is likely to focus on additional factors that may affect the degree of post-acquisition interfirm rivalry. See generally U.S. DEPARTMENT OF JUSTICE, MERGER GUIDELINES (1984) [hereinafter MERGER GUIDELINES].

6. See, e.g., *Hospital Corp. of Am.*, 106 F.T.C. 361 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987).

7. Under certain circumstances, even noncooperative behavior may lead to less than optimal industry performance when the number of competitors decreases. See, e.g., R. Willig, Remarks at New York State Bar Association: Antitrust Law Section Symposium 107-12 (Jan. 16, 1990); J. Rill, Remarks in Report from Official Washington: Merger Enforcement at the Department of Justice (Mar. 23, 1990).

ual firm to set and maintain a supracompetitive price is a function of the elasticity of the demand curve facing that firm, defined by the responsiveness of consumers and alternative suppliers to changes in relative prices. This elasticity will be determined by the firm's market share, the price elasticity of the market demand function, and the price elasticity of supply of the competitive fringe.⁸ Strictly speaking, a large market share is neither a necessary nor sufficient condition for the exercise of market power. A merger between a group of competing firms in a particular geographic market could result in those firms having a large market share for a particular set of products and services. Nonetheless, the enterprise created by this consolidation might not have the ability to establish and maintain a supracompetitive price structure if consumers and competitors are sufficiently responsive to changes in relative prices. As an example, consider the case of a hypothetical merger of plastic surgery practices. Even if the combined firm was to achieve a market share of seventy percent for elective plastic surgery, it most likely would not be able to raise prices to a supracompetitive level without either inducing customers to choose a different supplier or inducing other plastic surgeons to establish a practice in the area. Therefore, while market share is certainly important in the determination of whether a firm can raise prices unilaterally, it is not the only relevant factor.

2. *The Collusion Model*

In situations where no dominant firm is created, but the number of remaining competitors is still small, the question becomes whether there is a sufficient likelihood of reduced competitive performance to warrant an enforcement action. Although there are a large number of economic models in which noncompetitive outcomes emerge from noncooperative behavior, the antitrust enforcement agencies tend to focus more on the possibility of cooperative (i.e., collusive) behavior arising in the aftermath of the transaction.⁹

Collusive behavior is often profitable if it is successfully orchestrated. However, the characteristics of a particular market may make sustained co-

8. Formally, the price elasticity of market demand equals the percentage change in services demanded divided by the percentage change in prices. If a price change produces a greater percentage change in the quantity demanded, the demand for the product is termed elastic. Conversely, if a price change produces a less than commensurate change in the quantity demanded, demand is said to be inelastic.

9. The DOJ Merger Guidelines appear to focus principally on the likelihood of cooperative behavior, stating that "[i]f collective action is necessary [for market power to be exercised], an additional constraint applies. As the number of firms necessary to control a given percentage of total supply increases, the difficulties and costs of reaching and enforcing consensus with respect to control of that supply also increase." MERGER GUIDELINES, *supra* note 5, at 13.

operative behavior highly unlikely. While some features of the hospital industry increase the likelihood of successful collusion, other features undermine cooperative behavior. These features include: the extent of product heterogeneity; the number of different services that the potential colluders produce and sell; the number of dimensions along which competition takes place; the local regulatory environment; the development of nontraditional alternatives to inpatient hospital care; the existence of large, sophisticated buyers in the market; and the existence of information asymmetries among rival firms.

The information that cartel participants can obtain about their rivals' actions is a key to cartel stability. One theory based on this insight implies that several conditions will facilitate the establishment and maintenance of a tacit or explicit cartel.¹⁰ First, homogeneity of the goods and services simplifies the nature of the collusive agreement; complicated agreements are more difficult to enforce than simple ones.¹¹ Second, a small number of rivals are easier to monitor, which simplifies coordination.¹² Third, a large number of buyers stabilizes a cartel. When the number of buyers is large, relative to the number of sellers, additional business will be attracted only by making a large number of price cuts. This increases the likelihood that rivals will become aware of the price cuts and thereby deters price cutting. Of course, if a few large buyers exist in conjunction with many small buyers, significant sales might be obtained by making secret price reductions to the large purchasers.¹³ Fourth, buyer loyalty, as measured by the probability of a repeat purchase absent a price cut, increases cartel stability because sellers can accurately attribute the loss of a customer to price cutting by rivals.¹⁴ Fifth, a lack of new customers entering the market also contributes to cartel success.¹⁵ A price cut is more likely to be detected if all of the price cutter's additional sales come solely from the existing customers of rivals, rather than from a mixture of old and new customers.¹⁶

10. See Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44, 44 (1964).

11. *Id.*

12. *Id.* at 51.

13. *Id.*

14. *Id.* at 45, 51.

15. *Id.* at 48.

16. In addition to these standard cartel problems, hospital markets may present a unique impediment to collusion. The existence of for-profit providers, not-for-profit providers, and government-owned hospitals (all of whose goals may differ) in a given market may make it difficult for potential colluders to reach an agreement on collusive price, quantity, or quality levels. For a discussion of some factors that might facilitate or deter collusion among hospitals, see *Hospital Corp. of Am.*, 106 F.T.C. 361 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987); *United States v. Rockford Memorial Corp.*, 717 F. Supp. 1251 (N.D. Ill. 1989), *aff'd*, 898 F.2d 1278 (7th Cir.), *cert. denied*, 111 S. Ct. 295 (1990).

3. *Market Power*

In both the dominant firm and collusion models, a hypothetical monopolist must have market power in order profitably to increase prices. The exercise of market power requires: 1) low demand elasticity, i.e., few consumers will switch to alternatives or stop buying in the event of a price increase; 2) low supply elasticity, i.e., other producers fail to increase supply to take advantage of the increased margins available as a result of an anticompetitive price increase; and 3) existing barriers to prevent new producers from entering the market to obtain the supranormal profits earned by incumbent firms.

The elasticity of market demand for a good or service is generally determined by the availability of substitutes for that good or service. If there are products or services that consumers regard as acceptable substitutes at a competitive price, then the demand elasticity will be large. If market demand elasticity is sufficiently high, even a monopolist will be unable to raise prices significantly above the competitive level; any attempt to do so would induce customers to switch from the monopolist's product to one of the alternatives. This loss in sales could cause the monopolist's profits to fall, thereby compelling it to rescind the price increase.

For the purpose of antitrust analysis, hospital markets are generally thought to have two relevant dimensions to demand elasticity: a geographic dimension and a product dimension. Hospitals are generally thought to compete in markets that are local in character. A hospital's geographic market might be as small as a city; if the city is sufficiently large, the market might consist of some portion of this area. In this case, the relevant question is the extent to which consumers perceive hospitals located outside this area as an economical substitute for those located within the proposed market's boundaries. If these outside hospitals are regarded as close substitutes for the hospital(s) in the market, then the latter may face a constraint on its ability to exercise market power.¹⁷

The second dimension of hospital markets centers on the availability of substitutes for a product or service. The issue is whether acceptable substitutes for hospital services exist which can be exploited in the event of an attempted exercise of market power through the principal's increasing the price of hospital services to the monopoly level. Recent years have witnessed the growth of hospital alternatives, such as surgi-centers, emergi-centers, birthing centers, free-standing radiology centers, and ambulatory care centers, all of which provide services that formerly were obtainable primarily at hospitals. Furthermore, many procedures that previously were performed

17. Whether outside hospitals are close substitutes will depend upon whether the outside hospitals possess sufficient capacity to satisfy an increase in demand.

on an inpatient basis are now commonly available in physicians' offices. If these sources of supply can be substituted for services traditionally provided by hospitals, then even a monopolist hospital might have little or no market power. On the other hand, services produced by these nonhospital providers may be perceived as acceptable substitutes only for a small subset of the total array of services currently produced by hospitals. In this case, a category of hospital services subject to supracompetitive pricing could still exist.

The final determinant of the market power of a dominant firm or cartel is the elasticity of the fringe supply. This factor is determined by the speed with which the price-taking smaller competitors expand their output, thereby forcing the market price back to the competitive level. If the expansion of output is sufficiently large and accomplished in a sufficiently short period of time, then the market power of the dominant firm will be constrained. To illustrate, suppose that a merger between two short-term general hospitals creates an alleged dominant firm in the market for "inpatient services"¹⁸ in a designated geographic market. The ability of fringe suppliers to constrain the pricing power of this firm would depend upon factors such as the amount of excess capacity controlled by the competitive fringe, the ability of incumbent fringe suppliers to expand capacity, the ability of specialty providers (psychiatric or pediatric hospitals) to convert beds to general acute care, and the ability of de novo entrants to build capacity. Hospital markets are somewhat unusual in that oftentimes a complex system of laws and regulations¹⁹ restricts and diminishes the types of supply responses that a unilateral increase in price-cost margins normally would elicit.

B. Antitrust Markets and the Department of Justice Merger Guidelines

The United States Department of Justice (DOJ) Merger Guidelines define an antitrust market as a product or group of products located within a geographic area where the products are sold. A monopolist seller of those products in that area could permanently raise their prices above the current presumably competitive level. The Guidelines generally use the "smallest market" principle in defining both markets: The relevant markets are deemed to be the smallest product group and the smallest area which contain the merger partners and within which a price increase could be ef-

18. This definition has been commonly adopted in antitrust proceedings. *See* Hospital Corp. of Am., 106 F.T.C. 361, 384-85 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987).

19. An obvious example is certificate-of-need (CON) regulation, which controls expansions of hospital capacity. *See, e.g.*, Sherman, *The Effect of State Certificate of Need Laws on Hospital Costs* (Bureau of Economics, Federal Trade Commission 1988).

fected.²⁰ The DOJ algorithm establishes a hypothetical market that contains the merger partners and then determines whether a monopolist in this market could permanently raise prices. If product substitution or an increase in supply would defeat such an attempt, the products and/or suppliers that impose this competitive constraint would be incorporated into a revised market definition. This process is repeated until product substitution and supply expansions no longer constrain the behavior of the hypothetical monopolist. The ultimate market definition is characterized by small values both for the market demand and for the fringe supply elasticities. The antitrust market thus consists of those firms and those goods and services which substantially constrain the behavior of the merging firms.

1. Product Market

a. The "Cluster of Services" Approach

Any antitrust analysis requires the analyst to develop an initial service or set of services that might constitute an antitrust "product market." This has proven to be a challenging endeavor in the case of hospital mergers.

Unlike many firms, hospitals do not produce a single, homogeneous output. They are extraordinarily heterogeneous institutions, producing a diverse array of services. The typical short-term, general care hospital is perhaps the quintessential multi-product enterprise, combining a broad collection of labor and nonlabor inputs to produce a large set of outputs. The American Hospital Association (AHA) classification system employs a list of fifty-four service codes to indicate whether an institution offers services such as open heart surgery, inpatient hemodialysis, diagnostic and therapeutic radioscope facilities, and pediatric inpatient care.²¹ Further, in addition to providing the customary set of medical/surgical inpatient services, hospitals are increasingly reliant on the production of a large array of outpatient services as a source of revenue.

In an antitrust context, one way to assess the likely competitive implications of a hospital acquisition is to treat each of these individual services as a separate hypothetical product market and perform the usual merger analysis on a service-by-service basis. However, in virtually all of the hospital merger cases involving acute care hospitals that have been litigated by the FTC and the DOJ through the time of this article, the FTC cases and the courts have

20. As David Scheffman and Pablo Spiller have shown, this technique for delineating market boundaries is derived from the concept of demand elasticity. Scheffman & Spiller, *Geographic Market Definition Under the U.S. Department of Justice Merger Guidelines*, 30 J. L. & ECON. 123, 125 (Apr. 1987).

21. See generally AMERICAN HOSPITAL ASSOCIATION, *GUIDE TO THE HEALTH CARE FIELD* (1988).

applied a product market defined by the cluster of services offered by short-term, acute care hospitals.²² The economic rationale for the "cluster" approach is based upon some core set of services provided by hospitals that either (1) cannot be produced outside the setting of a traditional hospital or (2) are characterized by such strong complementarities in production and consumption (scope economies) that the cost of jointly producing the cluster is well below the cost of individually producing and consuming the cluster's components.²³ Depending on the strength of these complementarities, a monopolist producer of this service cluster could raise its price to a supracompetitive level without making it attractive for consumers to assemble their own cluster through services obtained from a variety of independent nonhospital providers. Examples of services that might make up this cluster are room and board for medical/surgical patients, twenty-four hour observation, nursing services, laboratory and X-ray services, intensive and coronary care, and ancillary support services.²⁴

Of the various criteria employed by the Commission staff to establish the case for a cluster market, the most compelling from an economic perspective are those that focus on the cost and demand complementarities existing between the cluster's components.²⁵ If this focus is adopted, the rationale for including all types of hospital services while excluding nonhospital outpatient services in a product market definition is questionable. The inpatient service complementarities described above appear principally to derive from

22. The first hospital merger case brought by a federal antitrust agency involved specialty, rather than acute care, hospitals. In 1980 the DOJ challenged the acquisition of a private psychiatric hospital in New Orleans by Health Affiliates International (HAI), which owned or managed two other private psychiatric hospitals in the area. The case appears to have been decided largely on a "structural" basis (i.e., it lacked an extensive assessment of the economic factors affecting competition). The court granted the DOJ's request for a preliminary injunction under section 7 of the Clayton Act, concluding that the respondent's post-acquisition 72.9% market share "approach[ed] monopoly proportions." *United States v. Hospital Affiliates Int'l, Inc.*, 1980-81 Trade Cas. (CCH) ¶ 63,721, at 77,853 (E.D. La. Oct. 9, 1980) (reasonable probability standard of review) (citation omitted).

23. A noneconomic rationale for using the "cluster" definition is that it is simply inconvenient to carry out a separate antitrust analysis for each individual member of a set of services, even though the existence of antitrust markets for individual services might be conceptually justified. Although the antitrust authorities have, until now, used the cluster approach, conditions could easily arise that would justify enforcement actions based upon likely competitive harm in some subset of the traditional hospital cluster market.

24. *Hospital Corp. of Am.*, 106 F.T.C. 361, 464-65 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987); *American Medical Int'l, Inc.*, 104 F.T.C. 1, 17, *modified*, 104 F.T.C. 617 (1984), *modified*, 107 F.T.C. 310 (1986).

25. Some of the other market definition criteria sometimes used in litigated cases are uninformative or misleading. This is particularly true of the "statutory recognition" criterion, which emphasizes that regulatory authorities recognize hospitals as a distinct type of provider. This criterion is devoid of economic content.

the large transaction cost savings available when a bundle of jointly consumed ancillary and support services are physically proximate to one another. If this view is correct, then it is not clear what, if any, complementarities exist between a hospital's inpatient and outpatient services. The empirical literature on hospital costs has actually obtained mixed evidence on the existence of these scope economies.²⁶ Absent such cost complementarities, a hospital's cost of providing a bundle of outpatient services likely would not fall below that of a free-standing ambulatory care center. Hence, a hospital or a cartel of hospitals may not be able to establish supracompetitive prices for outpatient services without losing sales to free-standing competitors. The implication is, therefore, that either nonhospital providers of outpatient care should be included in the relevant antitrust market or that the market should be restricted to include only inpatient services.

Although formal empirical analyses of the competitive impact of nonhospital outpatient providers are not available, anecdotal evidence from the hospital trade press suggests both that (1) free-standing outpatient facilities produce a similar range of services and compete for the same group of patients as do hospital outpatient departments and (2) the range of services available on an outpatient basis is constantly expanding.²⁷

26. Thomas Cowing and Alphonse Holtmann found that there actually may be scope diseconomies between the provision of emergency room services and inpatient services. See generally Cowing & Holtmann, *Multiproduct Short-Run Hospital Cost Functions: Empirical Evidence and Policy Implications from Cross-Section Data*, 49 S. ECON. J. 637 (1983). Another study found that there are scope diseconomies between emergency and inpatient care. Additionally, it found evidence of scope diseconomies between other types of outpatient (e.g., surgery outpatient visits, orthopedic outpatient visits) and inpatient services. See Grannemann, Brown & Pauly, *Estimating Hospital Costs: A Multiple Output Analysis*, 5 J. HEALTH ECON. 107, 126 (1986) [hereinafter Grannemann]; see also Vita, *Exploring Hospital Production Relationships with Flexible Functional Forms*, 9 J. HEALTH ECON. 1, 19 (1990) (no strong evidence of weak cost complementarities). But see Fournier & Mitchell, *The Impact of Competition for Hospital Services: A Multiproduct Cost Analysis* (Nov. 1987) (unpublished manuscript) (finding that small—but not large—hospitals experience scope economies between inpatient and outpatient services).

27. The inconsistency inherent in an "all hospital services" cluster market definition that excludes nonhospital outpatient services was recognized by the Commission in its *Hospital Corp.* opinion. Although neither the Hospital Corporation of America nor the Commission staff appealed the administrative law judge's product market finding, the Commission noted the existence of a substantial volume of evidence showing that hospitals and nonhospitals compete for outpatients. It also maintained, however, that hospitals nonetheless produce an inpatient service cluster "that bears little relation to outpatient care." *Hospital Corp. of Am.*, 106 F.T.C. 361, 465 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987). The Commission concluded that the conceptually appropriate product market may be that which excludes all outpatient services and is instead restricted to the core of services which, given current prices and medical technology, have no close outpatient substitutes. *Id.* In light of the analysis presented above, this appears to be an internally consistent definition that is empirically valid. Nonetheless, every year more and more services cross the inpatient/

The cluster of services approach to hospital market definition is not universally accepted. Jonathan Baker has criticized the cluster market approach in hospital mergers.²⁸ He characterizes the cluster approach as "remarkable" because it "asserts antitrust relevance to collections of products and services that are not substitutes."²⁹ Baker argues instead that complementarity is viewed best as a factor affecting firms' ability to collude; the value of the cluster market approach is limited to analytical convenience.³⁰

This article, however, concludes that defining antitrust markets on the basis of complementarities is both sensible and consistent with the Merger Guidelines approach. Virtually every firm unites some collection of complementary inputs which it transforms into one or more outputs. Whether this conglomeration of services collectively represents an antitrust market depends upon the cost to consumers of assembling their own outputs from this collection of inputs in response to a price increase. In many situations this cost will be prohibitively high, which supports the view that the cluster approach is economically sensible. A new automobile, for example, is a cluster consisting of a wide variety of different types of automotive parts. A literal reading of Baker's proposal implies that one would not analyze a merger between General Motors and Ford in terms of its implications for an auto market; rather, one would analyze first the merger's impact on the individual markets for specific parts, like the engine, radiator, transmission, and headlights, and then attempt to determine how the complementary relationships among these different components affect the stability of a hypothesized cartel of auto assemblers.

This approach is both cumbersome and incorrect. Although these different components may be sold separately, it hardly seems likely that the threat of consumers arranging for car assembly from individually purchased components would effectively constrain a new car assembly monopolist. Rather, this monopolist would be constrained only by the entry of new firms performing the same sets of activities and producing a finished car.

This does not mean that the cluster approach to market definition is always appropriate. One can think of examples where consumer patronage of a collection of single-service providers is sufficient to eliminate a hypothesized cluster market. For example, it has frequently been argued that banks

outpatient boundary. What has not been documented in great detail is how this affects the size and composition of the inpatient service cluster and how this cluster can be expected to shrink during the foreseeable future.

28. Baker, *The Antitrust Analysis of Hospital Mergers and the Transformation of the Hospital Industry*, 51 *LAW & CONTEMP. PROBS.* 93, 125 (1988).

29. *Id.*

30. *Id.* at 126-40.

provide a unique cluster of services that differ sufficiently from those offered by other financial institutions so as to render the cluster of banking services as a separate antitrust market.³¹ Without taking a position on whether this market definition is correct for the purposes of evaluating banking mergers, other financial institutions, such as savings and loans, credit unions, savings banks, and insurance companies, provide services that are close substitutes for many of the services provided by commercial banks. One can easily envision customers shifting funds from bank demand deposits to savings and loan NOW accounts in response to a reduction in the interest rates on demand deposits; seeking an automobile loan from a credit union in response to an increase in bank car loan rates; or obtaining trust management services from a trust company in response to an increase in trust management fees. Hence, the convenience associated with "one-stop" banking may not give a monopolist bank much opportunity to raise the price of any particular cluster of services.³²

The situation may be quite different in the case of hospitals. A person who purchases a hospital inpatient visit buys an array of services which individual service providers cannot easily acquire and combine. The patient care process is "a sequence of spot demands and deliveries," which necessitates that "production . . . be organized as if every input received by the patient is potentially an absolute necessity."³³ For example, many patients will need to combine postoperative nursing care with major surgical services. The medical severity of many types of surgery simply requires that the hospital locate certain types of labor (nurses, physicians, and technicians), as well as capital (e.g., monitoring, diagnostic, and resuscitation equipment), close to

31. See *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 356 (1963).

32. Banks produce many other services in addition to the three mentioned above, and a monopolist bank may indeed retain market power over them. For a more detailed discussion of financial deregulation on product and geographic markets, see generally Langenfeld & McKenzie, *Financial Deregulation and Geographic Market Delineation: An Application of the Justice Guidelines to Banking*, 30 ANTITRUST BULL. 695 (1985). The ability to unbundle a set of services can be affected by regulatory, as well as technological, factors. Under one regulatory regime, it may be sensible to speak of cluster markets, while under another it may not. This is certainly true of banking, where regulatory changes exposed banks to new competition from other service providers, and made unbundling less costly to consumers. Natural gas pipeline markets are another example. Historically, natural gas pipelines only sold the joint product "delivered gas," which consisted of gas and gas transmission bundled together. For antitrust purposes, it made perfect sense to analyze the competitive impact of a pipeline merger in terms of its implications for this cluster of complementary goods and services. Recent regulatory changes, however, have made it possible for gas purchasers to unbundle this cluster, i.e., to buy gas directly from a producer and contract separately with a pipeline for its delivery. Consequently, there may now exist two separate antitrust markets where only one existed before.

33. Harris, *The Internal Organization of Hospitals: Some Economic Implications*, 8 BELL J. ECON. 467, 470 (1977).

the patients to provide anticipated pre and postoperative care, as well as to address any unanticipated complications and emergencies that may arise. There is no practical way to supply these services to a patient outside of the traditional inpatient setting; one cannot unbundle hospital services as one can unbundle banking services. Regardless of whether these complementarities are characterized as a scope economy or as a "transactional complementarity,"³⁴ they represent a reasonable basis for defining antitrust markets.³⁵

The analysis in *United States v. Rockford Memorial Corp.*³⁶ demonstrates how courts resolve the issue of inpatient versus outpatient care. The court reasoned that the substitutability of inpatient and outpatient care occurs over time as new technology and medical knowledge are acquired.³⁷ However, once a hospital can perform a procedure on an outpatient basis, cost containment efforts ensure that the procedure is performed on that basis in the future; it is performed as an inpatient procedure only when medically necessary.³⁸

The court also found that

there is direct competition between the individual outpatient services provided by hospitals and non-hospitals. Despite the presence of this strain of competition, outpatient care is no substitute for acute inpatient hospital care. The outpatient provider represents a few procedures at most and cannot provide in any circumstance, an overnight stay. In providing patient care, the hospital may utilize a procedure that competes directly with outpatient providers when used alone for an outpatient. However, all competition and substitutability between the hospital and the outpatient provider ends when that same outpatient procedure is used in tandem with other services to treat an inpatient. The outpatient provider has nothing comparable to offer.³⁹

34. One commentator has used the term "transactional complementarities" to describe situations where consumers can significantly reduce their transaction costs by purchasing a bundle of goods from a single supplier. Note, *Rationalizing Antitrust Cluster Markets*, 95 YALE L.J. 109, 116 (1985) (described as "a demand side analog to economies of scope"). Alternatively, these savings could simply be characterized as scope economies in product distribution.

35. This is not to say that technological change could not cause the size of this cluster to shrink over time. It is indeed the case that many surgical procedures that a generation ago required a several day inpatient stay are now produced on an outpatient basis by both hospitals and nonhospital providers. Nonetheless, a remaining core of inpatient services could potentially be monopolized.

36. 717 F. Supp. 1251 (N.D. Ill. 1989), *aff'd*, 898 F.2d 1278 (7th Cir.), *cert. denied*, 111 S. Ct. 295 (1990).

37. *Id.* at 1259.

38. *Id.* at 1261.

39. *Id.* (footnote and citations omitted).

b. Supply-Side Substitutes for Acute Care Hospitals

One of the potential constraints on the exercise of joint or unilateral market power is the existence of a competitive fringe that can readily increase output. This fringe consists of those firms which do not participate in the collusive agreement but which take the collusive price as given and set their profit-maximizing level of output accordingly. If the fringe has a high supply elasticity, small price increases will produce relatively large increases in output from these firms. These increases will, if sufficiently large, make price increases unprofitable for the colluding firms.

In the specific context of a merger between short-term, general care hospitals, there are three sources of fringe supply. First, acute care hospitals may exist which are not party to the collusive agreement. They may have excess capacity and therefore may be likely to increase output in response to an anticompetitive price increase. A second source of fringe supply is *de novo* entrants; entry is discussed separately below. Finally, existing specialty care hospitals, e.g., psychiatric, can modify their existing facilities and commence production of acute care inpatient services.

The small number of specialty hospitals signifies that there will be only rare instances when supply-side flexibility influences the determination of the legality of a merger between general care institutions. However, instances could arise in particular geographic markets when these specialized institutions control a significant quantity of total hospital capacity. Consequently, the analysis should not ignore supply-side flexibility.

2. Geographic Market Analysis

To evaluate properly the market power that might be created through the consolidation of a group of hospitals, one must consider all relevant demand- and supply-side substitution possibilities. In the preceding section, the discussion centered on the constraints on market power imposed by nonhospital providers and specialty hospitals. Together, these constitute the "product market" alternatives to the services produced by some hypothesized dominant firm or cartel. There is, however, another important dimension to hospital competition. A hospital merger could generate very high levels of concentration in the geographic area that has been traditionally served by the merging enterprises. The merged entity might nonetheless have no market power, depending upon whether consumers residing in this area perceive more distantly located hospitals as close substitutes for the merged facility.⁴⁰ If they do, and if these alternative suppliers can readily

40. "Consumers" in this instance could consist of individuals, physicians acting as agents

increase their supply (i.e., exhibit a sufficiently high supply elasticity), then the ability of the merged enterprise to engage in anticompetitive activities will be constrained.

The preceding paragraph describes the essence of the "geographic market definition" question which forms perhaps the most important element in virtually all antitrust investigations of hospital mergers. In the remainder of this section, this article discusses the conceptual approach to geographic market delineation that is embodied in the 1984 Department of Justice Merger Guidelines. It then analyzes and criticizes the methods that have been historically used by the FTC and the DOJ to define the boundaries of geographic markets.

a. Geographic Market Under the Merger Guidelines

The DOJ Guidelines' approach to the analysis of the geographic market issue is conceptually the same as that used for the analysis of product market issues. The Guidelines state that

the Department seeks to identify a geographic area such that a hypothetical firm that was the only present or future producer or seller of the relevant product in that area could profitably impose a "small but significant and nontransitory" increase in price. That is, assuming that buyers could respond to a price increase within a tentatively identified area only by shifting to firms located outside the area, what would happen? If firms located elsewhere readily could provide the relevant product to the hypothetical firm's buyers in sufficient quantity at a comparable price, an attempt to raise price would not prove profitable, and the tentatively identified geographic area would prove to be too narrow.⁴¹

At issue here is the supply elasticity of the hospitals occupying the competitive fringe of the hypothesized market. As a general matter, the elasticity of fringe supply (i.e., the supply of services made available to consumers residing inside the market by the firms located outside the market) will be a function of the structure of the production and transportation costs of using the outside producers, as well as other factors.⁴²

In the case of hospital mergers, assessment of this fringe supply elasticity is somewhat more complicated than it might be in markets for other goods

for patients, or health maintenance organizations or other groups who provide health care to large numbers of members.

41. MERGER GUIDELINES, *supra* note 5, at 8.

42. These other factors are (1) the elasticity of the demand of the consumers located "outside" the market and (2) the prevailing level of *fringe* supply, relative to the *total* volume of output produced by the fringe suppliers. See Landes & Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 986-87 (1981); Scheffman & Spiller, *supra* note 20, at 131.

and services because of the special relationship that exists between the patient, the physician, and the hospital. Traditionally, patients have not selected their hospitals directly. They selected their physicians and their insurers, who, acting as agents for the patients, selected the hospital at which the patient would receive treatment.⁴³ This agency pattern implies that choices by those other than the patient will determine the extent to which fringe suppliers are chosen to provide services to consumers located inside the market. While this does not change the general principle involved, it makes the determination of fringe supply elasticity more difficult.⁴⁴

Although it is sometimes possible to delineate geographic markets directly through the econometric estimation of residual demand curves,⁴⁵ the FTC and the DOJ have employed less formal geographic market definition techniques in their hospital merger investigations. Both agencies have typically relied upon the Elzinga-Hogarty test (E-H test) to establish the dimensions

43. See generally *Hospital Corp. of Am.*, 106 F.T.C. 361 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987). To the extent that competition for physicians is the primary dimension of hospital rivalry, the answer to the geographic market question will turn on a number of factors. If patients are loyal to their physicians, and these physicians only had admitting privileges at hospitals that are a party to the collusive agreement, then the success of the cartel would depend on whether the physicians would seek (and obtain) privileges at more distant institutions in response to nonprice collusion. Whether this occurs will depend upon physicians' willingness to incur the higher costs associated with the use of more distant hospitals and the ability of these more distant institutions to absorb profitably the increased demand that would result from this behavior. By contrast, if price competition is important, then it becomes necessary to assess factors such as (1) the extent of patient loyalty to their current physicians (i.e., how large a price increase will patients absorb before they will switch to a doctor having privileges at a lower-priced institution), (2) the willingness of patients to incur the costs of using more distant hospitals, and (3) (as before) the ability of these alternative suppliers to serve these additional patients profitably.

44. For a discussion of the impact of physician and insurer purchasing preferences on the determination of a geographic market for hospitals, see Zwanziger, *Antitrust Considerations and Hospital Markets*, 8 J. HEALTH ECON. 457 (1989).

45. See generally Baker & Bresnahan, *The Gains from Merger or Collusion in Product-Differentiated Industries*, 33 J. INDUS. ECON. 427 (1985) (examples of residual demand estimation); see also Scheffman & Spiller, *supra* note 20, at 133-34 (same). Data availability and methodological requirements often limit the ability of researchers to obtain market definition evidence via estimation of residual demand estimation techniques. It actually appears unlikely that these techniques will be applicable to hospital market questions. Suppose that investigations hypothesize that the northern half of a large metropolitan area constitutes an antitrust market for the purposes of a merger between two local hospitals. To estimate the residual demand curve facing this group of hospitals, researchers would require historical data for some period of time during which the costs (e.g., wages and factor prices) of the "northern half" hospitals changed, while the costs of the "southern half" hospitals did not. We would expect such data to be quite rare, since hospitals located in the same city are likely to face the same input prices; increases or decreases in these costs will generally be experienced by all local hospitals at roughly the same time. Without such data, however, the residual demand curve cannot be identified.

of the relevant geographic market.⁴⁶ The E-H test uses two criteria to assess whether some particular area should be characterized as a market for anti-trust purposes: (1) the volume of services that are both locally produced and consumed as a percentage of total local consumption and (2) the volume of services that are both locally produced and consumed as a percentage of total local production. These criteria have come to be known as the "LIFO" (i.e., "little in from outside") and "LOFI" (i.e., "little out from inside") standards, respectively. Large values for the LIFO and LOFI statistics mean that relatively little output is imported or exported from some particular area. In order for some proposed market definition to satisfy the E-H test, both the LIFO and the LOFI figures must meet or exceed some arbitrarily defined threshold. It has become customary to say that a proposed market passes a "strong" E-H test if both the LOFI and the LIFO statistics exceed ninety percent, but that it passes only the "weak" E-H test if both figures fall into the seventy-five to ninety percent range. It is doubtful that an area will qualify as an antitrust "market" if either of these numbers falls below seventy-five percent. Large inflows or outflows of output suggest that it would not be possible for producers in the area to establish and maintain collusive prices successfully.⁴⁷

In the case of hospital mergers, the E-H figures are typically constructed from patient flow data, which give the locations of hospitals and residences of their patients. These data are sometimes available from the hospitals themselves or from state and local regulatory authorities. To illustrate the application of the E-H methodology, suppose a merger is proposed between two hospitals which compete in some hypothesized geographic market (market "A"). Following the protocol of the DOJ Guidelines, area A is believed to be the smallest area in which supracompetitive prices potentially could be established. Three items of information are then calculated for area A: (1) the volume of hospital services that are both produced in area A and are consumed by residents of area A; (2) the total volume of hospital services consumed by residents of area A (i.e., wherever produced); and (3) the total volume of services produced by hospitals in area A. The service volumes are generally measured in terms of inpatient discharges or patient-days. The ratio of (1) to (2) constitutes the LIFO statistic;⁴⁸ the ratio of (1) to (3) is the

46. See Elzinga & Hogarty, *The Problem of Geographic Market Delineation in Antimerger Suits*, 18 ANTITRUST BULL. 45 (1973).

47. *Id.* at 62-63.

48. A "high" LIFO statistic would indicate that few area A residents leave area A to receive hospital services.

LOFI statistic.⁴⁹ If both numbers equal or exceed .90, the enforcement agencies would likely declare area A to be a "strong" geographic market and perform the other elements of a merger analysis (e.g., the calculation of concentration statistics, the evaluation of entry conditions) with respect to this market. If market A does not pass the E-H test, the boundaries would be expanded, and the E-H statistics would be recalculated. This process would be repeated until an area is found that satisfies the E-H criteria.

Although the E-H method is widely used in hospital merger analyses, many questions have been raised regarding its ability to identify conceptually correct antitrust markets.⁵⁰ The E-H test is uninformative about the demand and supply elasticities that are the ultimate determinants of market boundaries and, therefore, of potential market power. The E-H test provides a static picture of product or service flows; it neither reveals how this flow would change in response to collusive prices nor reveals whether the changes in these flows would be sufficient to offset a price increase.

In the specific case of hospital mergers, additional problems with the E-H method may arise that further impair the ability of antitrust enforcers to identify antitrust markets. One of these problems derives from the highly aggregated nature of the patient flow data from which the E-H statistics are constructed in many studies of hospital markets.⁵¹ These data often distinguish only between broad categories of patient care. For example, one commonly used classification scheme separates patient discharges only into two broad categories: short-term care discharges and long-term care discharges. The problem is that, within a category such as "short-term patient discharges," there is a substantial amount of case-mix variation. This category would include patients hospitalized for relatively simple surgical procedures that are available from virtually any general short-term care facility, as well as patients who are seeking extraordinarily complex procedures that require highly specialized staff (and equipment) and which are provided only at a relatively small number of "tertiary care" facilities. Even if the discharge

49. A "high" LOFI statistic would indicate that few residents of other areas come to area A to obtain hospital services.

50. For a discussion of various approaches to geographic market definition and problems with these approaches, see generally Dobson, Breen & Hurdle, *Geographic Market Definition: A Review of Theory and Method for Domestic and International Markets*, 14 J. REPRINTS ANTITRUST L. & ECON. 937 (1984). For a discussion focused on hospital markets in particular, see generally Dranove & Shanley, *A Note on the Relational Aspects of Hospital Market Definitions*, 8 J. HEALTH ECON. 473 (1989); Luft, Phibbs, Garnick & Robinson, *Rejoinder to Dranove and Shanley*, 8 J. HEALTH ECON. 479 (1989); Werden, *The Limited Relevance of Patient Migration Data in Market Delineation for Hospital Merger Cases*, 8 J. HEALTH ECON. 363 (1989); Zwanziger, *supra* note 44.

51. See Werden, *supra* note 50, at 363-66.

data are categorized by particular specialties, such as medical-surgical, obstetrics, or psychiatric, a substantial amount of heterogeneity may nonetheless remain. An obstetric discharge may represent a routine pregnancy and delivery that can be accommodated at any hospital with an OB/GYN unit, or it may reflect a "high risk" pregnancy that calls for the use of an institution equipped to manage complex deliveries and their aftermath, e.g., hospitals having neonatal intensive care units.

Heterogeneity of this sort increases the difficulty of making reliable inferences on geographic market questions from aggregate discharge data. An outflow of patients from some particular region might simply represent the willingness of persons in that region to seek routine hospital care elsewhere, which, using the E-H standard, argues against the proposed market definition and in favor of a more expansive definition. Alternatively, the data might reflect persons seeking highly specialized care that is simply unavailable from the hospitals in their home community.⁵² If the latter type of behavior accounts for most of the patient outflow, the appropriate geographic market for antitrust analysis may, by implication, be at least as small as, and perhaps smaller than, the proposed definition.⁵³ An outflow of patients seeking specialty care cannot be construed as evidence of patients' ability to obtain primary care at hospitals located "outside" the market.⁵⁴ The same argument would of course apply to data on patient inflows, i.e., service outflows into a market. These patient flows might be the result of rural patients traveling to an urban center to obtain particular types of treatment not provided by rural hospitals or rural physicians.⁵⁵

Implicit in this argument is the proposition that some elements of the inpatient service cluster (the product market definition which was advocated by complaint counsel in *Hospital Corp.* and *Rockford Memorial*) compete in geographic markets that are larger in scope than those existing for other elements of the cluster.⁵⁶ This appears to be a reasonable conjecture; it ap-

52. *Hospital Corp. of Am.*, 106 F.T.C. 361, 468 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987).

53. Assuming, of course, that the LOFI standard is also satisfied.

54. That is, we cannot infer a high fringe supply elasticity of primary care services from this outflow of patients.

55. In *Hospital Corp.*, the Commission found that the Chattanooga urban area was the relevant market in which to assess the proposed transaction, arguing that the flow of patients into this area is, "with few exceptions, in need of specialized care and treatment unavailable in their own communities." 106 F.T.C. at 468 (citations omitted). For a model of the patient migration process that illustrates the problems involved in using patient flow data to calculate E-H statistics without examining the reasons for those patient flows, see Werden, *supra* note 50.

56. The court in *Rockford Memorial* found that the existence of referral agreements between hospitals in outlying areas and the hospitals in question proved that patients travelled to

pears likely that the market for highly specialized and esoteric services (e.g., organ transplants) might be regional, or perhaps national, while the market for more routine procedures (e.g., cataract surgery) might be localized.⁵⁷

b. Market Definition—Summary

Although the DOJ Merger Guidelines set forth a conceptually sound methodology for delineating geographic market boundaries, the application of this framework to hospital markets will probably continue to be a difficult task. The data requirements for the empirical application of theoretically defensible market identification techniques will seldom, if ever, be satisfied in hospital markets. It therefore appears likely that enforcement agencies will be constrained to rely on imperfect tools such as the Elzinga-Hogarty test for assessing the geographic dimensions of competition. The E-H statistic is a crude tool that can both understate and overstate market boundaries; consequently it must be used with a great deal of care and discretion. Investigators always must ask whether an absence of patient flows across some boundary reflects the existence of a defensible antitrust market or instead simply signifies that competitive prices prevailed on both sides of the boundary during the observation period. In cases where patient flows are significant, investigators must ask why those patient flows exist and whether they reflect movements of patients for standard or specialized hospital care.

C. Entry Conditions

According to standard economic theory, socially optimal long-run market

the referral hospital for special treatment not available at their local hospital. "Furthermore, if possible, the referring hospital will choose a hospital to refer a patient to with the understanding that the 'referring' hospital will not lose its primary and secondary patients to the 'referral' hospital." *United States v. Rockford Memorial Corp.*, 717 F. Supp. 1251, 1266 (N.D. Ill. 1989), *aff'd*, 898 F.2d 1278 (7th Cir.), *cert. denied*, 111 S. Ct. 295 (1990).

57. Although there unfortunately does not appear to be good data that would be instructive on this issue, some anecdotal evidence is available. Kralewski, Countryman, and Pitt studied the HMO-hospital contracting process and found that, for primary and secondary hospital services, HMOs weigh locational convenience at least as heavily as price when choosing a hospital. For tertiary care, however, they found that HMOs selected hospitals principally on price and quality, since

[p]atients requiring these services are much less concerned over convenience and are much more amenable to being 'directed' to distant and even inconvenient sources of care. HMOs cannot, therefore, be considered a unitary market from the hospitals' perspective. Rather, there appears to be two separate markets—one for primary and secondary care, and one for tertiary care. A third set of markets described by special services such as obstetrics is also evident.

Kralewski, Countryman & Pitt, *Hospitals and Health Maintenance Organizations Financial Agreements for Inpatient Services: A Case Study of the Minneapolis/St. Paul Area*, 4 HEALTH CARE FIN. REV. 79, 83 (Summer 1983).

performance requires that capital move freely in and out of industries. If it does, then sustained anticompetitive behavior will not occur. Any attempt by a dominant firm or cartel to earn monopoly rents through supracompetitive pricing or provision of subcompetitive quality will attract entry by profit-seeking entrepreneurs. It will also create incentives for output expansion by rivals already in the industry. Left unchecked, this capacity expansion and price reduction will continue to occur until the dominant firm or cartel dissipates its monopoly returns and a long-run, zero-profit equilibrium has been restored.⁵⁸

Do such conditions accurately characterize hospital markets in the United States? Many observers believe that they do not. A principal reason for this belief is the widespread existence of legal restrictions on investment and disinvestment in hospital capital. Numerous states require a regulatory authority, usually a state health planning agency, to approve proposed expansions in hospital capital.⁵⁹ This regulatory approval, manifested in the issuance of a "certificate of need" (CON), is dependent upon the regulator's perception that the proposed expansion will satisfy some unmet "need" in the relevant health care market.

It is immediately apparent that CON requirements, by design, may constitute an impediment to capital expansion, and therefore entry, into hospital markets.⁶⁰ There is no assurance that even a well-intentioned regulator, ap-

58. When fixed costs are present, the market may only approximately attain this zero profit condition because of the "integer problem." The integer problem arises when the number of firms that would assure zero profits is not an integer (e.g., two and one-half firms). In this case, only two firms would exist in equilibrium, since the addition of the third firm would cause negative profits to be earned.

59. Until 1987, the federal government also sponsored a capital expenditure review scheme under § 221 of the Social Security Amendments of 1972, Pub. L. No. 92-603, 86 Stat. 1329, 1386 (42 U.S.C. §§ 701, 1395, 1396, *as amended by* Pub. L. No. 92-603, 86 Stat. 1329, 1386 (adding § 1122 to Title XI of the Social Security Act)).

60. See Schramm & Renn, *Hospital Mergers, Market Concentration and the Herfindahl-Hirschman Index*, 33 EMORY L.J. 869 (1984). Schramm and Renn argued that CON laws are not true entry barriers because (1) most hospital markets contain excess capacity, which would render entry unattractive to any "rational" firm, and (2) regulators invariably grant a CON whenever a true "need" for a service or facility can be demonstrated. Schramm and Renn's blanket assertion on the irrationality of entry into markets with excess capacity is untenable; entry may or may not be deterred by excess capacity. *Id.* at 881; *see, e.g.,* Gilbert, *Pre-emptive Competition*, in NEW DEVELOPMENTS IN THE ANALYSIS OF MARKET STRUCTURE 90 (J. Stiglitz & G. Matthewson eds. 1986). Schramm and Renn's second point is essentially an assertion that CON regulation works perfectly. In support of this contention, they cite to the self-proclaimed social efficiency of CON regulators. Schramm & Renn, *supra*, at 881. This proposition should be viewed skeptically. A regulator's notion of "need" does not necessarily bear any resemblance to the concepts of demand and supply, which are the foundation of the socially efficient entry criterion in competitive markets. Further, certain aspects of the political economy of CON regulation (in particular, the standing granted to incumbents to oppose entry

plying the politically determined "need" criteria, will make entry decisions that are consistent with the attainment of the socially optimal price and quality mix, which would be ensured by competition. The very real possibility exists that by raising entry costs, CON requirements will insulate incumbent providers from the disciplining effects of potential entry and thereby permit a dominant firm or cartel to earn supracompetitive returns even in the long run.

Antitrust enforcers often examine factors other than CON regulations when assessing entry conditions in hospital merger cases. These factors include: (1) construction and planning lead times required to establish a new hospital; (2) the need to incur sunk costs upon entry; and (3) scale economies.⁶¹ These factors are sometimes referred to as "entry barriers," though they need not always satisfy an economist's formal definition of an entry barrier.⁶²

The first of these factors, lead time, does not qualify as an entry barrier under any formal definition, but it is nonetheless an important consideration in merger enforcement policy. Subsequent to a merger, entry may restore long-run competitive equilibrium in an industry. However, if this entry takes a long time to occur (e.g., five years), and if anticompetitive behavior is likely to occur in the meantime, then intervention may be justified to prevent the accompanying welfare losses. Economic theory unfortunately does not give clear guidance on what time period is appropriate for evaluating whether entry is sufficiently rapid to eliminate anticompetitive concerns. The DOJ Merger Guidelines employ a two-year time horizon (i.e., entry that is expected to occur within two years of the price increase will be regarded as an important competitive constraint on monopoly pricing).⁶³ This figure ap-

applications) are particularly troublesome from an antitrust perspective. The FTC noted in *Hospital Corp.* that "the CON process provides existing hospitals . . . ample opportunity to significantly forestall the entry of a new hospital or the expansion of an existing hospital within the area." 106 F.T.C. 361, 492 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987). Similarly, "the CON law grants a hospital already within the market a decided cost advantage by burdening an entrant with delays, expenses, and uncertainties never shouldered by existing competitors." *United States v. Rockford Memorial Corp.*, 717 F. Supp. 1251, 1282 (N.D. Ill. 1989), *aff'd*, 898 F.2d 1278 (7th Cir.), *cert. denied*, 111 S. Ct. 295 (1990). For a discussion of regulatory barriers to entry and their effects, see generally Demsetz, *Barriers to Entry*, 72 AM. ECON. REV. 47 (1982).

61. See W.T. Winslow, Deputy Director, Bureau of Competition, Federal Trade Commission, Remarks Before the 36th Annual American Bar Association Antitrust Spring Meeting (Mar. 22, 1988); Baker, *supra* note 28, at 154.

62. An entry barrier is "a cost of producing which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry and which implies a distortion in the allocation of resources from a social point of view." von Weizsacker, *A Welfare Analysis of Barriers to Entry*, 11 BELL J. ECON. 399, 400 (1980).

63. MERGER GUIDELINES, *supra* note 5, at 18.

pears to have been arbitrarily selected, and there is no necessary reason for believing that a longer or shorter period is not consistent with reasonable competitive goals.

The interpretation of the role of scale economies in affecting entry has evolved considerably over time. Since the modern view of scale economies as an entry barrier is closely tied to the notion of sunk costs, this article will discuss them jointly. Scale economies are reductions in unit production costs that typically arise from spreading fixed costs over greater volumes of output. For example, operating a modern 250 bed hospital may require the acquisition of a certain number of pieces of different types of diagnostic equipment (e.g., lab and X-ray machines, computer terminals). Doubling the size of the hospital to 500 beds will require the addition of more machines, but it may not entail a doubling of their number. If this is true, then scale economies will be present, ignoring other cost implications of expansion.

In this example, the cost of this equipment is fixed; however, it need not be sunk. Sunk costs are the costs associated with irreversible, or market-specific, investments. If the owner of a hospital elects to exit the business, some or all of the costs of this equipment may be recoverable. Data processing equipment, for example, could be sold to persons in a wide variety of different industries. Laboratory and X-ray equipment is obviously more specialized to health care applications, but it is not specific to particular geographic markets. If such equipment can be sold to hospitals in other geographic markets, then its costs need not be sunk either. These fixed costs are symmetric in the sense that they must be incurred by both incumbents and entrants. Fixed costs can be sunk, of course; for example, construction of a hospital may require the installation of a building whose specialized physical features have no value in other uses. The cost of these features is sunk.

The important distinction between costs that are sunk and those that are fixed is that only the former can create entry barriers in any meaningful welfare sense. If all investments are reversible, then entrants suffer no disadvantage relative to incumbents, irrespective of any production cost advantages attributable to scale.⁶⁴ This is because the entrant can attempt to compete on the same scale as the incumbent without incurring differential risk. If the attempt to enter proves unprofitable, the entrant can exit without further penalty.

64. See W. BAUMOL, J. PANZER & R. WILLIG, *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* 279-303 (1982) (Chapter Ten: Fixed Costs, Sunk Costs, Entry Barriers, Public Goods, and Sustainability of Monopoly) [hereinafter *CONTESTABLE MARKETS*].

Sunk costs may create an entry barrier because they create a differential degree of risk between the incumbent, who has already committed resources to the industry, and the entrant, who must take fungible capital and irreversibly commit part (or all) of it to a particular activity.⁶⁵ Although the incumbent also confronted risk when he entered the market, the entrant might face additional risk, in part because of actions taken by the incumbent to increase the entrant's risk.⁶⁶ The entrant must be compensated for this added risk in the sense that expected profits received when entry is successful equal or exceed the sunk costs incurred when it is not. The additional amount of money that an entrant must receive to induce him to incur this incremental risk represents a potential entry barrier.⁶⁷ It is this amount, rather than the size of the sunk cost per se, that represents the size of the potential barrier.

Viewing entry barriers as deriving from the risk premia necessary to induce firms to incur sunk costs also yields some interesting insights into means by which these entry barriers can be reduced. Firms will obviously require less compensation when the likelihood lessens that entry will fail and the sunk cost penalty will be incurred. As Baumol observed, the ability to execute contracts at the time entry is undertaken reduces this risk.⁶⁸ In the context of hospital markets, the ability of an entrant to sign a contract with PPOs, HMOs, or large employer groups to assure a steady and predictable flow of business will reduce the magnitude of the entry barrier associated with any given sunk investment. Also, the ability to reverse capital investments upon exit reduces the magnitude of sunk costs, thereby reducing entry barriers.

D. Efficiencies

In general, consolidation of hospital operations, as with any acquisition, may produce efficiencies that could outweigh possible anticompetitive effects of the acquisition. The relevant efficiencies that balance the possible an-

65. *Id.* at 290-92.

66. Risk is a social cost for which entrants must be compensated, and thus need not constitute an entry barrier (in the welfare sense). It is conceivable, however, that incumbents can take strategic actions to increase the degree of risk confronted by an entrant, thereby deterring welfare-increasing entry. Incumbents may, for example, be able to persuade entrants that the incumbents' post-entry levels of output will make entry unprofitable. Since entrants' expectations about post-entry behavior might depend in part on the existing market structure, it is possible that current potential entrants might expect a different response (and thus require a larger risk premium) than did current incumbents when the latter faced the entry decision, even if size of the sunk investment necessary for entry does not change.

67. *CONTESTABLE MARKETS*, *supra* note 64, at 282 ("An entry barrier is anything that requires an expenditure by a new entrant into an industry, but imposes no equivalent cost upon an incumbent.").

68. *Id.* at 291.

ticompetitive effects of an acquisition should be those which are not available through less problematic means. For example, some commonly cited efficiencies include reductions in administrative and overhead costs. These cost reductions might be available through a conglomerate merger with no horizontal overlap, and therefore the acquisition, with possible anticompetitive consequences, is not necessary to achieve them.⁶⁹

Beyond the question of whether efficiencies exist, there is the additional screen of whether they will be passed on to consumers as a result of the acquisition. While most economists would argue that the proper standard for antitrust enforcement would maximize the sum of the gains to producers and the gains to consumers, if cost reductions will not be passed on to consumers in the form of lower quality-adjusted prices, the Commission is likely to challenge an acquisition.

Efficiencies available only through horizontal acquisitions can include both economies of scale and of scope. Economies of scale are found when unit costs of production decline as the level of output is increased. Economies of scope are generated when inputs are used jointly in multiple outputs, as for example in physician services, such that the cost of producing multiple outputs jointly is less than the cost of producing them separately.

1. Economies of Scale

A recent review of the literature on hospital cost function estimation⁷⁰ found that most analyses characterize production of hospital services as having constant returns to scale or constant unit cost with increasing output once a threshold of approximately 200 beds is reached.⁷¹ Thus, most of these studies indicate that hospitals below this size prior to the acquisition are not capable of producing hospital services with maximum efficiency. In

69. The Merger Guidelines appear to take a broader definition of merger specific efficiencies by including at least some overhead cost savings.

Cognizable efficiencies include, but are not limited to, achieving economies of scale, better integration of production facilities, plant specialization, lower transportation costs, and similar efficiencies relating to specific manufacturing, servicing, or distribution operations of the merging firms. The Department may also consider claimed efficiencies resulting from reductions in general selling, administrative, and overhead expenses, or that otherwise do not relate to specific manufacturing, servicing, or distribution operations of the merging firms

MERGER GUIDELINES, *supra* note 5, at 22. However, "the Department will reject claims of efficiencies if equivalent or comparable savings can reasonably be achieved by the parties through other means." *Id.*

70. Cowing, Holtmann & Powers, *Hospital Cost Analysis: A Survey and Evaluation of Recent Studies*, in 4 ADVANCES IN HEALTH ECONOMICS AND HEALTH SERVICES RESEARCH 257 (R. Scheffler ed. 1983).

71. *Id.* at 264.

particular, Grannemann⁷² found evidence of strong economies of scale in the production of emergency room services, and most studies which disaggregate hospital output find that average costs decrease at least up to some point with increases in unit output and bed utilization. This would imply that a consolidation of the overlapping departments of the two hospitals might produce significant efficiencies due to the presence of scale economies in production.⁷³

Another method of evaluating scale economies in production is via survivor analysis. This type of analysis is based on the premise that the most efficiently sized firms will tend, over time, to survive in a market while inefficiently large or small firms will tend to move toward efficient size or exit the market. That is, if some sizes of hospitals are more efficient than others, then hospital decisionmakers will attempt to alter the size of their hospital to take advantage of these efficiencies and maximize some utility function. Over time, the size distribution of hospitals will tend toward an optimum where all sizes are equally efficient at the margin. Until this optimum is reached, those sizes that grow most rapidly can be identified as most efficient at the margin. Conversely, those sizes that are decreasing most rapidly can be identified as least efficient at the margin.

Carson Bays analyzed changes in the size distribution of hospitals over time.⁷⁴ Using the survivor analysis technique, he found that from 1971 to 1977, there was a statistically significant decline in the percentage of hospitals with less than 100 beds.⁷⁵ This was true whether the group was all hospitals or if the analysis was limited to either for-profit or not-for-profit hospitals. Using the same technique with 1976, 1981, and 1987 American Hospital Association data,⁷⁶ similar results were compiled in the following table:

72. Grannemann, *supra* note 26, at 121.

73. However, this approach implicitly assumes the absence of cost complementarities between different hospital outputs, whereas if there are scope economies between different departments, shutting down a department in a hospital could raise the costs of producing some or all of the remaining services.

74. Bays, *The Determinants of Hospital Size: A Survivor Analysis*, 18 *APPLIED ECON.* 359 (1986).

75. *Id.* at 362.

76. AMERICAN HOSPITAL ASSOCIATION, *HOSPITAL STATISTICS* (1977, 1982 & 1988 eds.).

PERCENTAGE OF HOSPITALS WITH 100 OR FEWER BEDS (1976-1987)

	1976	1981	1987
For-Profit	57%	49%	44%
Nonprofit	48%	46%	46%
All Hospitals	49%	46%	46%

The most marked decrease in any size class was in for-profit hospitals with less than fifty beds. The 1976-1987 time period also saw statistically significant increases in the percentage of hospitals with 200-399 beds. This tends to confirm Bays's conclusion that "the emerging consensus of these recent studies is that average cost per admission is minimized over the approximate range of 200-400 beds."⁷⁷ H.E. Frech prepared a survivor analysis for the period 1970-1985 and obtained similar results concerning market share.⁷⁸ Frech also found that small hospitals (fewer than 100 beds) experienced larger declines in both occupancy rates and profitability relative to large hospitals.⁷⁹

It is noteworthy that recent DOJ antitrust enforcement activity has focused primarily on acquisitions in which all substantial efficiencies due to scale economies were probably already achieved by the pre-merger firms. Two recent DOJ cases involving nonprofit organizations dealt with much larger hospitals than are analyzed here. One proposed acquisition involved a 310 bed and a 683 bed hospital in Roanoke, Virginia, and the other involved a 363 bed and a 396 bed hospital in Rockford, Illinois. Neither of these transactions, both of which the Department of Justice challenged, would be expected to produce substantial scale economies if the literature on hospital scale economies is correct.

In contrast, cases that the Justice Department has declined to pursue include a case in Danville, Illinois, in which the merging hospitals had 235 and 219 beds and were both operating substantially below fifty percent of capacity, and a case in Portsmouth, Ohio, involving a 225 bed and a 210 bed hospital, one of which was arguably failing. Neither of these acquisitions was opposed by area residents. In Danville, the Justice Department was "convinced that there were genuine efficiencies that could be obtained only by the merger and its ensuing consolidation."⁸⁰ Similarly, in Portsmouth,

77. Bays, *supra* note 74, at 359.

78. See H.E. Frech, *An Economic Analysis of the Proposed Merger of Sacred Heart Hospital and the Eugene Hospital* (submitted to the U.S. Dep't of Justice 1988).

79. Frech conducted two analyses: one using aggregated national data and one using data on Oregon hospitals. There may be additional regional variation in survival rates not detected by Frech's analysis.

80. C.F. Rule, Assistant Attorney General, Antitrust Division, U.S. Department of

the parties to the transaction argued that the "diminution of competition occurring from the merger would be offset by efficiencies achieved by the consolidation of the facilities."⁸¹ Based on an evaluation of the facts, the Justice Department decided against a suit. The existence of potential scale-related efficiencies, however, does not mean that the acquisition will not be challenged. The FTC has challenged a merger between two hospitals in Ukiah, California, both having approximately 50 beds.⁸²

2. *Economies of Scope*

The economics literature has identified varying results on economies of scope in production of hospital outputs. At least three studies⁸³ have found some scope diseconomies. However, one study found substantial cost savings associated with joint production of several outputs, such as pediatrics, obstetrics, and emergency room services.⁸⁴ The evidence on economies of scope is mixed and probably should not be used to indicate strong support for an acquisition. However, there is some indication that cost savings may be available from scope economies.

3. *Efficiencies—Conclusion*

Given the evidence on efficiencies available from hospital acquisitions, it may be the case that many mergers between competing hospitals are efficient. However, when such a transaction also creates a substantial likelihood of competitive harm, the merger should then be "reasonably necessary to achieve significant net efficiencies,"⁸⁵ and the parties should show that the merger is likely to achieve such efficiencies. Finally, the efficiencies achieved from the merger should outweigh the projected anticompetitive consequences of the acquisition.⁸⁶

Justice, Remarks on Antitrust Enforcement and Hospital Mergers: Safeguarding Emerging Price Competition 21 (Jan. 21, 1988).

81. *Id.* at 22.

82. Adventist Health System/West, No. 89-9234 (F.T.C. filed Nov. 7, 1989), *complaint dismissed* (F.T.C. Aug. 2, 1990) (appeal pending before the Commission).

83. See, e.g., Cowing & Holtmann, *supra* note 26; Grannemann, *supra* note 26; Sherman, *supra* note 19.

84. Fournier & Mitchell, *The Impact of Competition for Hospital Services: A Multiproduct Cost Analysis* (Nov. 1987) (unpublished manuscript).

85. MERGER GUIDELINES, *supra* note 5, at 22. For a discussion of the trade-offs between efficiencies and market power, see generally Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18 (1968).

86. The court in *Rockford* gave the following account of its required standard:

Although the defendants have demonstrated that the merger will generate some unique savings, . . . the amount saved pales in comparison to the likely amount of revenues generated by the defendants in the same five year period. Moreover, mo-

E. Conclusion

A major task in assessing the competitive implications of hospital mergers is defining the dimensions of the product and the geographic markets within which competition takes place. This task is particularly difficult in the case of hospital mergers because of the heterogeneous nature of hospitals' output mix, the rapid pace of technological change in health service markets, and the empirical inability to implement conceptually sound market definition techniques. Nonetheless, the merger analysis framework articulated in the DOJ Merger Guidelines can be applied fruitfully to hospital mergers.

An increase in the level of concentration in an economically relevant market is not a sufficient condition for the exercise of market power. Barriers to entry, such as those created by government regulations, must also be present. Although barriers of this sort are gradually being eliminated, many jurisdictions still adhere to regulatory policies that inhibit and impede competition. Efficiencies may also be present which may offset possible anticompetitive impacts of the acquisition.

Unless a merger appears to create a monopolist or dominant firm, assessing market boundaries and identifying impediments to entry into those markets is only part of the task that must be undertaken by antitrust enforcers. In most common oligopoly market settings, enforcers must also attempt to predict if rival firms can establish and maintain an explicit or tacit anticompetitive agreement.

II. ANTICOMPETITIVE AGREEMENTS AMONG COMPETITORS

Agreements among competitors that are short of a merger can harm competition. Price-fixing, for example, harms consumers by directly restricting price competition between otherwise competing entities. However, agreements on other dimensions of competition can harm consumers without price-fixing. Also, some agreements among competitors restrict output and raise prices without providing any offsetting consumer benefits, while others can lead to greater efficiencies. At one extreme, Congress has given certain agreements among competitors, such as motor carrier rate bureaus, per se legality.⁸⁷ At the other extreme, it is per se illegal to fix prices, divide mar-

nopoly rents could far outweigh the savings presented, particularly in light of the fact that much of the savings cited by the defendants were not clearly and convincingly generated by the merger.

United States v. Rockford Memorial Corp., 717 F. Supp. 1251, 1291 (N.D. Ill. 1989), *aff'd*, 898 F.2d 1278 (7th Cir.), *cert. denied*, 111 S. Ct. 295 (1990).

87. Reed-Bulwinkle Act, ch. 491, 62 Stat. 472 (1948) (codified as amended at 49 U.S.C. § 10706(b) (spec. supp. 1990)). The Interstate Commerce Commission has since limited collective rate setting and other aspects of tariff bureaus' ability to restrict actions of their mem-

kets, and organize boycotts in most markets not exempt from antitrust laws.⁸⁸ A continuum of possible agreements among rivals, including trade association rules and some joint ventures, exists between these two extremes. Antitrust enforcement officials must analyze possible agreements among rivals and separate those arrangements that are likely to produce efficiency benefits from those that harm consumers.

A. Alternative Legal Standards for Agreements Among Competitors

The competing per se and rule of reason standards force courts to make a trade-off among judicial efficiency, business certainty, and accuracy in decisions.⁸⁹ A per se standard provides clear guidance to businesses and promises judicial efficiency. Per se bans on agreements tend to favor those who would challenge such agreements because a plaintiff need not devote as much time and energy to bringing a case as under a rule of reason inquiry. Moreover, if a plaintiff can successfully characterize a restriction as per se illegal, he will usually win. Alternatively, while a court can make a full rule of reason analysis in all horizontal agreements cases, it is very cumbersome. There is usually a gain in the accuracy of the decisionmaking process by devoting resources to weighing the potential anticompetitive costs against the benefits of an agreement, but this often takes a great deal of time and expense. Such a process creates uncertainty in the business community that inhibits planning and thus discourages some agreements. Despite this tendency, the plaintiff carries the burden of proof in rule of reason cases. As such, rule of reason tends to favor defendants.

With respect to health care, the Commission has generally found group boycotts to be per se illegal.⁹⁰ Other cases have been less easy to identify as per se illegal. For example, the consent signed in *Medical Staff of Memorial Medical Center*⁹¹ provides that the medical staff will not deny or restrict hospital privileges to certified nurse-midwives *unless* the staff has a reasonable basis for believing that the restriction would serve the interests of the hospital in providing "for the efficient and competent delivery of health care

bers. See Notification of Rate Proposals Following Prior Independent Action, 358 I.C.C. 487 (1978).

88. Federal Trade Comm'n v. Superior Court Trial Lawyers Ass'n., No. 88-1198 (F.T.C. Jan. 22, 1990).

89. For a discussion of the trade off between simple and complex legal rules in antitrust, see Fisher, Johnson & Lande, *Price Effects of Horizontal Mergers*, 77 CALIF. L. REV. 777 (1989).

90. Examples of group boycotts found to be illegal include *Indiana Fed'n of Dentists*, 101 F.T.C. 57 (1983), *rev'd*, 745 F.2d 1124 (7th Cir. 1984), *rev'd*, 476 U.S. 447 (1986); *Rochester Anesthesiologists*, 110 F.T.C. 175 (1988).

91. 110 F.T.C. 541 (1988).

services.”⁹² The Commission has also investigated restraints against advertising and other forms of solicitation, restraints on innovation and new entry, restrictions on access to hospitals, and illegal tying arrangements. Agreements such as advertising restrictions, hours of service limitations, and ancillary agreements to joint ventures constitute gray areas in judicial decisionmaking, where the law currently makes an uncomfortable transition from per se rules against agreements among competitors to rule of reason analysis.

The Supreme Court has realized the difficulty of this transition in cases such as *Broadcast Music, Inc.*,⁹³ *National Collegiate Athletic Association*,⁹⁴ and *Indiana Federation of Dentists*,⁹⁵ and has attempted to put some structure in the analysis of these “gray area” agreements. As the leader in challenging these noncriminal agreements in cases such as *American Medical Association*,⁹⁶ *Indiana Federation of Dentists*, and *Massachusetts Board of Registration in Optometry*,⁹⁷ the FTC has attempted to flesh out a reasonable approach based on an “expanded per se inquiry” or a “truncated rule of reason” approach to the “gray area” cases.

Even when a rule of reason standard would judge the legality of the basic agreement, the FTC and the courts may challenge specific rules as per se illegal or pursue them under a *Massachusetts Board* truncated rule of reason approach. Specifically, the majority of the Commission recently declined to challenge a joint venture agreement, but it did find certain ancillary clauses anticompetitive.⁹⁸ A joint venture between, for example, two or more HMOs to provide some service to their members would be analyzed by a

92. *Memorial Medical Center*, 110 F.T.C. at 546.

93. *Broadcast Music, Inc. v. Columbia Broadcasting Sys.*, 441 U.S. 1 (1979).

94. *National Collegiate Athletic Ass'n v. Board of Regents*, 468 U.S. 85 (1984).

95. *Federal Trade Comm'n v. Indiana Fed'n of Dentists*, 476 U.S. 447 (1986).

96. *American Medical Ass'n*, 94 F.T.C. 701, 1005 (1979), *aff'd*, 638 F.2d 443 (2d Cir. 1980), *aff'd by an equally divided Court* 455 U.S. 676 (1982).

97. *Massachusetts Bd. of Registration in Optometry*, 110 F.T.C. 549 (1988).

98. In *Nippon Sheet Glass*, 55 Fed. Reg. 11,256 (F.T.C. 1990) (proposed Mar. 27, 1990), Nippon proposed purchasing 20% of Libby-Owens-Ford (LOF), a domestic subsidiary wholly owned by Pilkington Brothers, plc. The stock purchase, along with other terms, effectively made LOF a joint venture between Nippon and Pilkington. The stock acquisition, as with all mergers and acquisitions, was analyzed under a rule of reason analysis with close attention paid to factors such as market definition and entry conditions. By not challenging the stock acquisition, the majority of the Commission indicated that it did not have reason to believe the joint venture was anticompetitive. The Commission did, however, prohibit one clause in the joint venture agreement, which prevented Nippon and Pilkington from independently building a plant in the United States. This clause would have effectively forced each party to commit fully to the joint venture by preventing the opportunistic behavior of expanding capacity outside of the venture. Although the restriction in question would have arguably encouraged the parent companies to channel their competitive efforts through the joint venture, all five Commissioners voted to rescind the clause.

rule of reason. However, an ancillary clause to prevent competition between the HMOs in the provision of other services might be analyzed as inherently suspect.

B. The Economics of Agreements Among Competitors

The potential for collusive horizontal agreements on output and prices is always present among competitors. However, collusive behavior is not limited to prices, market division, and boycotts. Competitors may employ horizontal agreements to disadvantage firms outside the group anticompetitively and to prevent innovative practices of nonparticipating firms. For example, in *Massachusetts Board*, one of the challenged restraints was a "ban on truthful advertising of an affiliation between an optometrist and a retail optical store."⁹⁹ Not only did the ban on advertising make entry by retail optical chains more difficult, it most likely raised the costs of obtaining customers for the optometrists willing to form such an affiliation. Therefore, the restraint probably raised the overall cost of such an affiliation and raised the profits of nonaffiliated optometrists.

Competitors also may use horizontal agreements to raise their own costs by adopting rules that make certain forms of competition costly for all participants. For example, many consumers search the prices of different firms for the lowest quality-adjusted price of a desired product or service. Restrictions on advertising, services, and hours of operation clearly increase the cost of obtaining information on the lowest price. Consumers are then faced with a tradeoff: they must either spend more time and money searching for a lower quality-adjusted price supplier or cut their search short when the restriction-induced increase in search costs more than offsets the increased likelihood of finding a lower price. This leads some consumers to pay higher prices for the desired product or service, while others stop their search before they find a price low enough to induce them to buy, thus reducing demand for output.

Agreements among rival firms or doctors may also produce significant economic benefits. These agreements may generate large efficiencies through the integration of facilities in research and development, production, marketing, information gathering, and quality assurance. Moreover, these agreements correct "externalities" that could otherwise lead to market failures.¹⁰⁰ In the professions, ethical codes can prevent negative externalities stemming from deceptive advertisements. Advertisements such as "painless

99. *Massachusetts Bd. of Registration in Optometry*, 110 F.T.C. 549, 585 (1988).

100. An externality exists when the actions of a firm or an individual indirectly affect the well-being of other firms or individuals.

dentist" may bring customers to the advertising dentist, but if the dentist is not "painless," his clients not only may never return to him but also may be reluctant to use *any* dentist. Ethical codes also can create positive externalities, such as assuring consumers that any member of an association meets certain minimum quality standards.

Under what conditions might the potential for collusion outweigh the benefits from such horizontal agreements? Economic analysis identifies several necessary conditions. First, those involved in the agreement must collectively possess some form of "market power." In some cases, market power may arise from the large market share controlled by participants or the presence of significant barriers to entry or expansion into the relevant market. In other cases, participants in an agreement may achieve market power relative to nonparticipants if participants achieve cost savings that cannot be duplicated outside of the agreement. Impediments to entry into the group or profession need not be significant; it is enough that it is difficult for alternative groups to achieve economies of scale or other cost advantages enjoyed by members of the group, association, or medical staff.¹⁰¹

Second, the participants must be able to impose costs on, or deny benefits to, nonparticipants. In other words, the agreement must be enforceable, often through coercive state power.

Third, the same efficiency benefits which the horizontal agreement generates may be obtained through a less restrictive alternative with little potential for anticompetitive effects. Finally, as Demsetz hypothesizes, other unrestricted aspects of competition, which competitors can substitute inexpensively for those restricted, must not exist.¹⁰²

While these conditions may be necessary for an agreement to be anticompetitive, they are not sufficient. Most organizations and joint ventures are, in essence, collections of agreements not to compete in a variety of dimensions. It is extremely difficult to separate, either analytically or empirically, the procompetitive agreements from the anticompetitive ones. Many organizations and joint ventures have aspects of both. However, most joint ventures and associations or medical staff rules are, on balance, procompetitive. Thus, it is critical that law enforcement actions not destroy the basic proconsumer, efficiency aspects of the association, medical staff, or joint venture. For example, if an association or joint venture grew from a small market share to dominate a whole market over competition from others, then that

101. For further discussion on agreements among competitors, see Langenfeld & Morris, *Analyzing Agreements Among Competitors: What Does the Future Hold?*, ANTITRUST BULL. (forthcoming).

102. H. Demsetz, *One Hundred Years of Antitrust: Should We Celebrate?*, The Brent Upson Memorial Lecture, George Mason University (Sept. 1989).

association or joint venture must have been more efficient (and serviceable to consumers) than its alternatives. The growth of the American Medical Association is a case in point: "[P]rivate practitioners flocked to join the AMA during the Progressive Era. From 8,400 member doctors in 1900, the AMA jumped to 70,000 by 1910 and represented fully 60 percent of the nation's doctors by 1920."¹⁰³ This does not mean that all of an association's rules are efficiency driven; rather, the overall set of rules produces an alternative that consumers preferred.

Assuming the association or joint venture eventually dominates a market, can antitrust enforcers identify rules that unnecessarily limit competition, while leaving alone the rules that are efficiency motivated? Is there a method for accomplishing this short of rule of reason, which often generates substantial legal costs and uncertainty for firms?

C. The Need for a More Simple Framework to Analyze Agreements Among Competitors

All horizontal agreements among rivals may limit competition. Therefore, some argue horizontal agreements in general may be unnecessarily restrictive, primarily because individual firms could achieve the same ends without potential antitrust problems by negotiating separate agreements with each of their customers and competitors to achieve the efficiencies. This rationale, however, does not help policy makers determine which joint ventures, medical staff rules, or other agreements are anticompetitive. Most economists, of course, would prefer that all antitrust enforcement agencies conduct a full rule of reason analysis by balancing costs and benefits before challenging horizontal restraints. However, it is extremely costly to gather and analyze all of the economic information required under the rule of reason. Moreover, some information necessary for a full rule of reason analysis may not be critical in determining whether to challenge restraints in most cases. These considerations, coupled with the limited resources available to antitrust enforcement agencies, suggest that it does not make sense for the courts and antitrust enforcement agencies to perform a full rule of reason analysis in every case.

Judge Frank Easterbrook advocates an approach to analyzing agreements among competitors that uses market power as the appropriate screen.¹⁰⁴ Determining the market power of an association is, however, more difficult

103. Markowitz & Rosner, *Doctors in Crisis: Medical Education and Medical Reform During the Progressive Era, 1895-1915*, in *HEALTH CARE IN AMERICA* 188 (S. Reverby & D. Rosner eds. 1979).

104. Easterbrook, *The Limits of Antitrust*, 63 *TEX. L. REV.* 1 (1984).

than in most product markets. First, there are the normal tasks of market definition and entry.¹⁰⁵ Second, several techniques used to define markets and market power in merger cases may not be useful in evaluating agreements among competitors.¹⁰⁶ Third, while market power may take several forms when dealing with an association, an association may not need an extremely large market share to generate anticompetitive rents. Depending on the profession, some rules may limit competition within an association and increase prices of its members without regard to nonmembers, while in other professions, nonmembers may limit the ability of an association to adopt anticompetitive rules. Anecdotal evidence can give an impression of whether market power exists in a horizontal restraints case. However, going beyond the anecdotal level to determine market power systematically may quickly require an analysis that approaches the complexity of a full rule of reason analysis.¹⁰⁷

A market power screen must be used in cases where a group of competitors is alleged to have monopolized the market for an input into the production of some good or service.¹⁰⁸ Hospital privilege cases may fall into this category. If, as in *Memorial Medical Center*,¹⁰⁹ health care providers are denied hospital privileges by a group of other health care providers, this may increase their costs of doing business substantially to the extent that they cannot practice profitably at all if there are no close substitutes for the monopolized input.¹¹⁰ In *Memorial Medical Center*, for example, the obstetri-

105. Even if one chooses to assume entry into a profession is difficult, one must define the product market with care because it is virtually impossible to identify market power without knowing the proper antitrust market.

106. For example, premerger prices are usually competitive and the main concern is that prices could increase due to the merger. Accordingly, the Department of Justice's Merger Guidelines define markets in terms of the potential for price increases from observed levels. In existing agreements among competitors that involve possibly anticompetitive restrictions, observed prices may have already been raised to monopoly levels. Consequently, applying DOJ style analyses may lead to relevant product and geographic markets that are too large—understating the market power of the firms involved in the agreement.

107. For a list of the types of nonsystematic anecdotal evidence that might be used in horizontal restraints cases, see *infra* note 121.

108. Using a market power screen, those competitors who, as a group, do not have market power would not be prohibited from undertaking joint activity. See also THE DICTIONARY OF MODERN ECONOMICS 274 (D. Pearce ed. 1983).

109. *Medical Staff of Memorial Medical Center*, 110 F.T.C. 541 (1988).

110. Market power for a monopolized input is determined by the price elasticity of demand for that input. The determinants of this elasticity are (1) the extent to which other inputs may be substituted, (2) the elasticity of demand for the final product, (3) the proportion of total product cost attributable to the input in question, and (4) the elasticity of supply of other inputs. See G. STIGLER, THE THEORY OF PRICE 242-44 (3d ed. 1966). If there are good substitutes for the "monopolized" input, the monopolist will have little meaningful market power.

cal and gynecological staff agreed to deny hospital privileges to a certified nurse-midwife.¹¹¹ Essentially, they colluded to create and exercise market power in the market for an input—obstetric services produced at a local hospital.¹¹² This had anticompetitive consequences, and a consent order was obtained. In these cases, denial of privileges or access is not likely to have anticompetitive consequences unless control of the facility in question confers market power on those who control access to it through their collective actions, which eliminates potential competitors not party to the agreement by denying these entrants access to “essential” or low cost facilities.¹¹³

In general, an association, medical staff, or joint venture either must offer some advantage to members or be able to force its rules on nonmembers in order to restrict output and raise price. Otherwise, nonmembers can take sales away from association members when the association tries to maintain higher prices. There must be some impediment to an alternative organization recreating the efficiencies of the association. These impediments might include: (1) explicit legal restrictions on other associations or (2) the need for an association to achieve a minimum membership representing a significant percentage of providers before it can offer efficient services. Without such an impediment, another association could be formed that offers the same efficiencies and lower prices to final consumers, thereby eroding the base of associations that attempt to raise price above the competitive level. Finally, the association must have some way to punish its members if they do not abide by the association’s rules. Lacking some enforcement mechanism, members would reap the benefits of the organization and be able to cheat on anticompetitive restrictions to gain additional clients—effectively destroying attempts by the association to restrict quality-adjusted output and raise prices.

111. 110 F.T.C. at 544.

112. *Id.* at 542.

113. Creating and exercising monopoly power in an input market injures competition and reduces consumer welfare. Once this power has been created, however, economic theory cannot tell us whether a decision to sell only to some subset of the purchasers of this input (i.e., excluding others) further reduces welfare or whether it mitigates the monopoly welfare losses. See Brennan, *Understanding “Raising Rivals” Costs*, 33 ANTITRUST BULL. 95 (1988). One might be able to make a credible argument that in medical privileges cases, such exclusionary conduct further reduces welfare. In many input markets, a vertically integrated upstream monopolist might be willing to sell to downstream entrants, as it could set a price for the input that attenuates the competitive significance of the entrant. In privileges cases, the health professional is usually not charged a per-patient price for admissions; once granted admission privileges, the professional has substantial discretion as to the number of patients admitted. Unless the hospital charges the patients of the targeted professionals a higher price than it charges the patients of the collusive group, outright denial of privileges may be necessary to effectively exercise input market power.

As a policy matter, while the Commission staff often considers market power in case selection, competent analysis of market power almost inevitably leads to a full rule of reason analysis or to a set of filters unlikely ever to find a practice illegal.¹¹⁴ *Massachusetts Board* illustrates that the Commission understands the difficulty of analyzing market power in agreements among competitors. There, the Commission noted that the “case in large part parallels *American Medical Association*,” although “it presents an important additional factor. The advertising restraints here have the force of law.”¹¹⁵ This statement makes sense only if optometry is a separate market; otherwise, the Board’s power to compel adherence to its regulations would make little difference to consumers because they could turn to substitute providers of care. The initial decision, however, recognizes that opticians and ophthalmologists provide many of the same services as optometrists. Optometrists may “diagnose, by any means except drugs, deficiencies in the human eye disease and prescribe corrective lenses” and “sell and fit glasses and contact lenses.”¹¹⁶ Although ophthalmologists focus on eye disease and surgery, they may perform any service that optometrists do. Similarly, although opticians may not prescribe lenses, they sell and fit them, generally in competition with an optometrist. Thus, the extent that opticians and ophthalmologists compete with optometrists apparently did not trouble the Commission when it struck down these advertising restrictions—indicating it is not necessary to define markets and show market power for Commission action. Instead, the Commission primarily relies on an efficiency screen to determine whether agreements among competitors can be condemned short of a full rule of reason analysis.

D. FTC’s Massachusetts Board Approach to Agreements Among Competitors

The FTC has developed its own set of “filters” to channel cases more likely to be anticompetitive into a “truncated” rule of reason analysis and to channel cases less obviously anticompetitive into a full rule of reason analysis. The *Massachusetts Board* approach was in part designed to help clarify the Supreme Court’s rulings in cases such as *Broadcast Music*, *National Col-*

114. A restraint is “unreasonable either because it fits within a class of restraints that has been held to be ‘per se’ unreasonable, or because it violates what has come to be known as the ‘Rule of Reason.’” *Federal Trade Comm’n v. Indiana Fed’n of Dentists*, 476 U.S. 447, 485 (1986). Using the rule of reason, the “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.” *Id.* (quoting *Chicago Bd. of Trade v. United States*, 246 U.S. 231, 238 (1918)).

115. *Massachusetts Bd. of Registration in Optometry*, 110 F.T.C. 549, 605 (1988).

116. *Id.* at 559.

legiate Athletic Association, and *Indiana Federation of Dentists*, where the agreements among competitors were not per se violations—but proved extremely difficult to analyze under a full rule of reason. It gives a “quick look” to anticompetitive explanations before it focuses the main inquiry into the existence of efficiencies. The approach attempts to simplify the analysis by identifying cases where there are relatively few costs to avoiding the often complex rule of reason questions of market definition, market power, and how to weigh anticompetitive concerns against efficiencies. As such, the Commission’s truncated rule of reason approach or expanded per se analysis can lead to a complaint without analyzing in detail the market power of the group in question.

The *Massachusetts Board* approach begins by asking if a practice is “*inherently suspect*,” which does not require market definition or a detailed showing of market power.¹¹⁷ Only if the practice is not found to be “inherently suspect” does the Commission apply the traditional rule of reason with market power tests. The inherently suspect step does, however, involve three parts in establishing the potential for output restriction.¹¹⁸ First, the Commission assumes that there are no offsetting efficiency considerations—the efficiency inquiry is deferred until after the practice is determined to be “inherently suspect.” Second, the Commission must determine whether there exists a persuasive theory of how an agreement or rule could lead to an anticompetitive or “rent-creating” outcome, i.e., how the agreement or rule leads to a “quality-adjusted” output restriction.¹¹⁹ *Ceteris paribus*, the more complex and indirect the theory of output restriction, the less likely that the rule or agreement will reduce output and the more likely the practice should not be classified as inherently suspect. Finally, before labeling an agreement or rule as inherently suspect, the Commission must find the existence of some credible evidence that is consistent with the anticompetitive theory. To make this determination, the Commission has relied on documents clearly showing anticompetitive or rent-creating intent, market data demonstrating the output restricting effects of the agreement or rule, or clearly documented or carefully researched experiences with similar rules in similar markets that show these types of agreements restricting output. In *Memorial Medical Center*, for example, the obstetricians made the argument at the

117. *Id.* at 604 (emphasis added).

118. *Id.*

119. The theory of output restriction will imply that the group of competitors has some degree of market power. The *Massachusetts Board* approach, however, does not require a detailed analysis of the market power issue, as we discuss below. At most, the approach might consider evidence indicating that the existence of market power is plausible. See D.K. Owen, Commissioner of the Federal Trade Commission, Remarks at the Ohio State Bar Association, Emerging Antitrust Enforcement in the 1990’s (Nov. 16, 1990).

Credential Committee meeting that granting privileges to the certified nurse-midwife would cause an economic problem to young OB/GYN doctors. This was documented in the minutes of the meeting, showing an anticompetitive intent to the action of privilege denial.¹²⁰

Once a practice is labelled "inherently suspect," the second and third filters address the existence and validity of efficiencies, respectively. If efficiencies do not exist or are not valid, the practice is deemed unlawful.

The amount of evidence need not answer all the questions raised in a rule of reason analysis. For example, rule of reason analysis usually requires the establishment of clear product and geographic markets, the existence of barriers to entry, the ability of colluders to monitor output restricting agreements, and generally the ability and intent of an association or joint venture to exercise market power. To establish a restraint as inherently suspect, the Commission has not found it necessary to meet all of these evidentiary requirements. Instead, the Commission has relied on a few pieces of key evidence that are consistent with output restrictions and generally not consistent with competition. These key pieces of evidence provide a "reality check" on the theory.¹²¹ Agencies may require relatively little evidentiary support specific to the industry or association to conclude that an agreement or rule is inherently suspect when dealing with familiar and well-understood restraints such as price-fixing or customer allocation. However, this evidentiary requirement is particularly important where the Commission is relatively unfamiliar with the rules or the industry since, in these instances, theory is less likely to be well-founded.

If there is persuasive evidence that the restriction has been used in an anticompetitive or rent-creating fashion in a similar association or joint venture in a similar industry, relatively less evidence is needed to establish that a rule or agreement is inherently suspect. For example, the Federal Trade Commission followed the approach just outlined in *Massachusetts Board*. In *Massachusetts Board*, the Commission did not address the possibility that the restrictions were efficient until after it established they were inherently suspect. It described how advertising restrictions on optometrists could result in higher prices without an increase in the quality of services—the equivalent of a quality-adjusted output restriction.¹²² To confirm the theory, the Commission applied its experience with similar advertising restrictions

120. *Medical Staff of Memorial Medical Center*, 110 F.T.C. 541, 554 (1988).

121. Evidence for the "reality check" might include evidence of intent to deter innovations by rivals, evidence that the group imposing the restraint is significant among sellers of similar services, indications that the group has some inherent advantage in production relative to rival groups or individuals, or evidence of enforcement of group restrictions.

122. *Massachusetts Bd. of Registration in Optometry*, 110 F.T.C. 549, 576-77 (1988).

in *American Medical Association* and the experience of the Supreme Court with other professional groups to help determine if optometrists' advertising restrictions were "inherently suspect." The Commission also relied heavily on an economic study and other evidence that related specifically to optometrists to show the anticompetitive effects of the rules in question.¹²³

In *Massachusetts Board*, the amount of evidence used to show that the rule restricted output fell short of what is normally required in a full rule of reason analysis. The Commission did not perform a detailed analysis of geographic or product market definition, nor did it weigh evidence on the ease of entry in either case. This reduced evidentiary burden is consistent with an attempt to identify practices likely to be anticompetitive without engaging in a full rule of reason analysis that would necessitate market definition and other potentially complex analyses, which are prerequisites to determining systematically market power and its exercise. However, the Commission did require evidence that would permit it to distinguish between competition and output reduction.

In this case, the second filter of the Commission was to determine if there were any plausible efficiencies from the restriction. Similar to the inherently suspect step, this filter asks for a credible theory of how the restriction *increases* output by lowering costs or improving the quality of services offered. If there is no credible theory, then the inquiry ends and the restriction is illegal.

Under the third filter, if there is an efficiency theory but the restriction is not clearly tied to that theory or is excessively broad, then the restriction is also illegal. For example, in *Massachusetts Board*, the Commission found the Board's restrictions on price advertising, testimonials, and "flamboyant" advertisements illegal because the Board offered "no plausible efficiency justification."¹²⁴ The Commission also rejected respondent's procompetitive

123. In *Detroit Auto Dealers Ass'n*, 108 F.T.C. 193 (1986), the Commission followed the same procedure. Prior to considering efficiency arguments, the Commission investigated whether the market-wide restriction of hours of operation was inherently suspect. The Commission first articulated a theory of output restriction in terms of both common sense and economic theory. The Commission also relied on evidence to confirm that the restriction reduced output. In particular, the Commission quoted the association's executive vice president as stating "[the restricting of showroom hours has] improved [dealers'] grosses. This has been brought about by the fact that with fewer shopping hours, the public can devote less time to shopping, and consequently forcing down prices." At least two written statements by the association confirmed this motivation and result from the coordinated reduction of retail hours. In addition, the Commission cited numerous examples of enforcement of the rules induced by the association's or direct dealers' action (complaint, initial decision, and opinion of the Commission available from the FTC Public Reference Branch, H-130, 6th and Pennsylvania Ave., N.W., Washington, D.C. 20580).

124. *Massachusetts Bd.*, 110 F.T.C. at 607.

justifications for banning optometrists' advertising of their affiliations with opticians. In general, antitrust policy seeks to encourage innovative and efficient forms of competition, while it forbids competitors to discourage them. It is not surprising that the FTC found implausible the Commonwealth's claim that it needed to prevent the growth of apparently efficient commercial optometrists.¹²⁵

If the Commission had found these restrictions plausible, it next would have questioned the validity of the efficiencies. Similar to the inherently suspect test, there has to be some evidence to validate theoretical efficiencies before they are considered not just "plausible" but credible. Absent some evidence confirming the efficiency, the Commission truncates its analysis and finds the restriction illegal. If sufficient evidence exists, then the efficiency is presumably valid even if that evidence does not quantify the cost savings or product improvements—just as the Commission does not attempt to quantify "market power" in determining "inherently suspect." A finding of evidence showing validity triggers a full rule of reason analysis where the Commission analyzes market power and attempts to quantify efficiencies before deciding whether the restriction is on balance anticompetitive.

As can be seen in this brief description, the *Massachusetts Board* approach addresses market power directly only if either the restraint is not inherently suspect or there are valid efficiencies. The focus on efficiencies may be justified in the context of agreements among competitors because the agreements are usually in place at the time of the investigation, and any efficiencies should be ongoing and therefore somewhat easier to document than in a merger case where any efficiencies are prospective. In addition, it may be easier to determine that a restraint is reasonably necessary to achieve an efficiency than to determine market power. Since a per se rule against agree-

125. The Commission also found the respondent's three efficiency justifications in *Detroit Auto Dealers* to be implausible. First, the association argued that dealers needed to coordinate and restrict the number of hours they were open to lower overhead costs. The Commission, however, found that the restrictions did not lead to overall unit cost reductions. The second claimed efficiency was to assist the ability of dealers to attract high quality sales personnel, while the Commission found that an agreement among competitors is not a necessary condition for this efficiency to occur. Finally, the association alleged that it needed the restriction to prevent unionization of dealers' salesmen, while the Commission found that preventing unionization cannot be upheld as an efficiency argument since unions legally have the right to exist (complaint, initial decision, and opinion of the Commission available from the FTC Public Reference Branch, H-130, 6th and Pennsylvania Ave., N.W., Washington, D.C. 20580). Given the high probability that these restrictions were anticompetitive—as demonstrated by labelling them "inherently suspect"—it is difficult to see how a filter requiring a market power analysis or a full rule of reason test would have been more efficient in determining their legality.

ments among competitors has no efficiency defense, the *Massachusetts Board* approach is less likely to condemn an agreement.

However, there may be some concern whether defendants carry too large a burden of proof under such an approach.¹²⁶ The Commission bears the burden of proof to show a practice is "inherently suspect," but this is much less difficult than a finding of market power. The reduced burden could lead to a condemnation of agreements among competitors that would not be permitted under a market power filter where the plaintiff carries the burden of proof. By focusing on efficiencies in *Massachusetts Board*, the court reduces the evidentiary burden to show potentially anticompetitive effects. However, no defendant's efficiency defense has been found "plausible" in the Commission's decisions that employ the *Massachusetts Board* test. Accordingly, it is unclear how large a burden a defendant must bear to show that efficiencies are both plausible and valid, and therefore legal.¹²⁷

E. Conclusion

At present, the law is unclear whether a per se prohibition, a rule of reason, or some other standard will be applied to various agreements among competitors, including joint ventures and trade association rules. Some agreements will usually be procompetitive, and those that would challenge such agreements should bear the substantial burden of proof under a rule of reason standard. Other agreements, such as price-fixing and market division, may be better left illegal per se. Between these two extremes exists a "gray area" where judicial efficiency suggests the need for a systematic approach to agreements among competitors. These agreements may be handled under an approach that requires market power analysis if the case involves a group of competitors who agree to a restriction that will effectively monopolize a market for the production of a particular good or service, such as a hospital privileges case. In other instances, a group of doctors may agree to limit competition among themselves, and this may be governed by the FTC's *Massachusetts Board* analysis. Similar to the guidance provided by the Merger Guidelines, the *Massachusetts Board* approach may offer an effective way to separate anticompetitive from efficient behavior in the "gray areas." Unlike the Merger Guidelines, the *Massachusetts Board* methodology focuses the inquiry on an efficiency rather than a market power screen. Depending on the evidentiary burden in showing efficiencies, the approach could be closer to a per se standard banning agreements among com-

126. Coate, *Horizontal Restraints in the Professions*, ANTITRUST BULL. (forthcoming).

127. The Commission's evidentiary standard appears to be less than the "clear and convincing" standard required under the Merger Guidelines, but this has not been articulated.

petitors than a rule of reason standard. Whether the Commission analyzes a case under the *Massachusetts Board* approach, economic analysis is critical to determine whether these “gray area” cases are likely to enhance competition.

