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Quality-Enhancing Merger Efficiencies

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Quality-Enhancing Merger Efficiencies

Roger D. Blair* & D. Daniel Sokol**

ABSTRACT: The appropriate role of merger efficiencies remains unresolved in United States antitrust law and policy. The Patient Protection and Affordable Care Act (“ACA”) has led to a significant shift in health care delivery. The ACA promises that increased integration and a shift from quantity of performance to increased competition will create a system in which quality of health care will go up and prices will go down. Increasingly, due to the economic trends that respond to the ACA, including considerable consolidation both horizontally and vertically, it is imperative that the antitrust agencies provide an economically sound and administrable legal approach to efficiency-enhancing mergers. In this regard, horizontal hospital mergers present particular challenges for antitrust. Most hospital merger cases focus on cost-based efficiencies, as does most of the academic empirical literature. Yet, government policy seems out of sync with quality-enhancing efficiencies analysis. This Essay first provides a discussion of the welfare effects on quality and its implications for antitrust analysis. Then, the Essay explores quality-enhancing efficiencies analysis in both the 2010 Horizontal Merger Guidelines and in antitrust case law. In doing so, the Essay identifies areas of both clarity and ambiguity regarding quality-enhancing efficiencies policy. Third, the Essay draws parallels to an efficiency analysis of quality under rule of reason analysis, in which the Essay offers examples of resale price maintenance and tying of franchising contracts. Thereafter, the Essay addresses how agencies and courts should treat quality-enhancing efficiencies in mergers. In doing so, the Essay draws upon the existing academic literature in empirical industrial organization economics and public health on measurements of what is hospital quality in a consolidating health care marketplace. In its concluding section, the Essay advocates a more robust use of quality measurements as a guiding principle of merger law and policy that (1) is flexible enough for case by case analysis; (2) will provide for ease of

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administrability; and (3) will make outcomes fall more in line with sound economic analysis than the current system.

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I. INTRODUCTION

The role of merger efficiencies remains unresolved in U.S. antitrust law and policy.¹ Within the world of merger efficiencies, the antitrust agencies and courts have spent less effort in analyzing and developing workable legal rules with regard to quality-enhancing efficiencies vis-à-vis cost-reducing efficiencies. As this Essay explains, agencies and courts offer greater weight to price than quality efficiencies. In some cases this does not affect the outcome of a case. Indeed, only a small number of litigated cases or matters before the agencies have been decided on efficiency grounds.² Among cases in which efficiencies matter, a merger in which there are no cost efficiencies also may be a situation in which there are no quality efficiencies. Nevertheless,

1. See generally Roger D. Blair & Jessica S. Haynes, *The Efficiencies Defense in the 2010 Horizontal Merger Guidelines*, 39 REV. INDUS. ORG. 57, 57–68 (2011); Hillary Greene & D. Daniel Sokol, *Judicial Treatment of the Antitrust Treatise*, 100 IOWA L. REV. 2039 (2015); Howard Shelanski, *Efficiency Claims and Antitrust Enforcement*, in 1 THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS 451 (Roger D. Blair & D. Daniel Sokol eds., 2015); D. Daniel Sokol & James A. Fishkin, *Response: Antitrust Merger Efficiencies in the Shadow of the Law*, 64 VAND. L. REV. EN BANC 45, 46 (2011) (“discussing the actual practice of merger efficiencies and the underlying scholarly work in the area”).

2. For litigated cases, see *infra* note 29. For agency matters, see generally MALCOLM B. COATE & ANDREW J. HEIMERT, FED. TRADE COMM’N, ECONOMIC ISSUES: MERGER EFFICIENCIES AT THE FEDERAL TRADE COMMISSION 1997–2007 (2009), available at <https://www.ftc.gov/sites/default/files/documents/reports/merger-efficiencies-federal-trade-commission-1997%E2%80%932007/0902mergerefficiencies.pdf>.

sometimes there may be situations in which the quality-enhancing efficiencies may be substantial, even while the cost-reducing efficiencies may not be. Such mergers should be allowed to proceed. By providing greater weight to cost efficiencies at the expense of quality enhancing efficiencies, antitrust policy creates market distortions. Ignoring changes in quality or underemphasizing such changes “in a merger analysis can lead to a bias in estimated welfare effects” of mergers and to mistaken outcomes.³

By creating a false distinction between price and quality efficiencies, antitrust merger policy is out of step with antitrust policy in the area of conduct. The fundamental question, for example, regarding occupational licenses, such as in *California Dental*, is the price-versus-quality question and the desire for quality assurance.⁴ The same can be said in *Leegin* about Resale Price Maintenance (“RPM”) both in the free rider and non-free-rider contexts.⁵ This Essay seeks to provide some guidance on how to create an administrable system for measuring quality-enhancing efficiencies.

Upon first glance, costs seem easier to measure than quality factors. Unlike price, where lower price is the single dimension (assuming one product), quality may have multiple dimensions. However, such reasoning is deceptively easy and misguided. Even in a pricing context, cost is not always easy to determine. A multi-product discount can mean that price may be higher for one product but the entire bundle would be cheaper.⁶ Limiting oneself only to price, there are multiple ways to determine the appropriate cost-based tests in the context of single-firm conduct.⁷ In this sense, the overriding concern of administrability regarding quality measurement seems out of place as price/cost tests may be equally difficult for courts to figure out as quality measurement.

Quality issues remain critical to antitrust merger analysis. The purpose of section 7 of the Clayton Act is to prevent mergers that create monopolies or

3. See, e.g., Ying Fan, *Ownership Consolidation and Product Characteristics: A Study of the US Daily Newspaper Market*, 103 AM. ECON. REV. 1598, 1598 (2013).

4. *Cal. Dental Ass’n v. Fed. Trade Comm’n*, 526 U.S. 756, 762, 771–78 (1999).

5. *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 890–92 (2007).

6. This is not the issue that is the focus of our Essay. We note however that a number of litigated cases have addressed this issue. See, e.g., *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 272–81 (3d Cir. 2012); *Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883, 903–11 (9th Cir. 2008); *Church & Dwight Co., Inc. v. Mayer Labs., Inc.*, No. C-10-4429 EMC, 2011 WL 1225912, at *8–11 (N.D. Cal. Apr. 1, 2011).

7. See, e.g., A. Douglas Melamed, *Exclusive Dealing Agreements and Other Exclusionary Conduct—Are There Unifying Principles?*, 73 ANTITRUST L.J. 375, 387–89 (2006); Kevin M. Murphy et al., *Competitive Discounts and Antitrust Policy*, in 2 THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS 89, 92–93 (Roger D. Blair & D. Daniel Sokol eds., 2015); Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The “No Economic Sense” Test*, 73 ANTITRUST L.J. 413, 418–20 (2006).

oligopolies.⁸ The 2010 Horizontal Merger Guidelines (“2010 Merger Guidelines”) express this concern specific to quality-enhancing efficiencies, noting that “purported efficiency claims based on lower prices can be undermined if they rest on reductions in product quality or variety that customers value.”⁹ That is, quality degradation, if it results in lower cost, is not to be supported under efficiencies analysis. When both costs and quality efficiencies increase, however, the 2010 Merger Guidelines are silent. They contemplate only situations in which “[e]fficiencies also may lead to new or improved products, even if they do not immediately and directly affect price.”¹⁰ Increased quality may also impact mergers where there is no price decrease or where prices go up post-merger.

Understanding quality efficiencies is especially important today, after the increased merger activity that has resulted from the passage of the Patient Protection and Affordable Care Act (“ACA”).¹¹ The ACA promises that increased integration and a shift from quantity to quality performance through increased competition will create a system in which quality will go up and prices will go down.¹² Increasingly, due to the economic trends that respond to the ACA, including considerable consolidation both horizontally and vertically, it is imperative that the antitrust agencies provide an economically sound and administrable legal approach to efficiency-enhancing mergers.¹³

Quality is particularly important as an issue that has emerged in the rapid consolidation in health care, particularly among hospital mergers. Most

8. See Clayton Act § 7, 15 U.S.C. § 18 (2012 & Supp. I 2013); 4 PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 901b2, at 8–10 (rev. ed. 1998).

9. U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES 31 (2010) [hereinafter 2010 MERGER GUIDELINES], available at <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>.

10. See *id.* at 29.

11. Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010), amended by Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, 124 Stat. 1029 (codified in scattered sections of 20–21, 25–26, 42 U.S.C.).

12. Accountable Care Organizations (“ACOs”) are one attempt to create such efficiencies based on integration short of a merger. See Thomas L. Greaney, *Regulators as Market-Makers: Accountable Care Organizations and Competition Policy*, 46 ARIZ. ST. L.J. 1, 3–7 (2014).

13. Edith Ramirez, Comm’r, Fed. Trade Comm’n, Antitrust, Accountable Care Organizations, and the Promise of Health Care Reform, Keynote Address at the 11th Annual Loyola Antitrust Colloquium 2 (Apr. 29, 2011), available at http://www.ftc.gov/sites/default/files/documents/public_statements/antitrust-accountable-care-organizations-and-promise-health-care-reform/110429loyolaspeech.pdf (“Antitrust enforcers recognize that provider collaboration represents an innovative way to seek to lower healthcare costs and improve the quality of care. We of course do not want to stand in the way of those goals. At the same time, we want to ensure that the financial savings and improved patient outcomes that could result from these collaborative efforts are not lost because of increased provider concentration and coordination.” (citation omitted)). See generally Kristin Madison, *Hospital Mergers in an Era of Quality Improvement*, 7 HOUS. J. HEALTH L. & POL’Y 265 (2007).

hospital merger cases focus on cost-based efficiencies, as does most of the academic empirical literature.¹⁴ Yet, government policy seems out of sync with quality analysis. Last year, the then-head of the hospital merger group of the Federal Trade Commission (“FTC”) stated how the agency viewed quality of care:

[T]hough quality of care experts may play an important role in hospital merger cases, their role generally is limited to reviewing the case-specific evidence and explaining its implications to the judge; testimony that hospital mergers (or some subset thereof) generally have a positive or negative impact on quality is suspect. Thus, just as with other defenses, quality-related claims in hospital merger matters often turn on ordinary course documents, executive testimony, and other case-specific evidence.¹⁵

If one made such claims that cost effects should focus on ordinary course documents rather than as part of a rigorous econometric analysis, practitioners and academics in the field would not consider those as part of the true economic-effects-data-driven practice that is the standard in antitrust merger analysis.¹⁶ Economic analysis- and effects-based antitrust, including econometric analysis, is the basis for both agency decisionmaking and court analysis regarding competitive effects.¹⁷

14. See, e.g., David Dranove & Richard Lindrooth, *Hospital Consolidation and Costs: Another Look at the Evidence*, 22 J. HEALTH ECON. 983 (2003). Because quality is an important part of competition in hospital services, we cannot entirely rule out that price increases are not so much a reflection of market power but a change in the quality improvements.

15. Jeffrey H. Perry & Richard H. Cunningham, *Effective Defenses of Hospital Mergers in Concentrated Markets*, ANTITRUST, Spring 2013, at 43. Notably, the same article exclusively addresses its discussion of efficiencies in the cost context.

16. See generally 2 THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS (Roger D. Blair & D. Daniel Sokol eds., 2015). The lack of significant focus by courts on qualitative factors for quality of care seems to show no change from earlier cases. See Peter J. Hammer & William M. Sage, *Antitrust, Health Care Quality, and the Courts*, 102 COLUM. L. REV. 545, 636–37 (2002).

17. See generally Rebecca Haw Allensworth, *The Influence of the Areeda–Hovenkamp Treatise in the Lower Courts and What It Means for Institutional Reform in Antitrust*, 100 IOWA L. REV. 1919 (2015); Roger D. Blair & Christine Piette Durrance, *Licensing Health Care Professionals, State Action and Antitrust Policy*, 100 IOWA L. REV. 1943 (2015); John M. Connor & Robert H. Lande, *Not Treble Damages: Cartel Recoveries Are Mostly Less Than Single Damages*, 100 IOWA L. REV. 1997 (2015); Daniel A. Crane, *All I Really Need to Know About Antitrust I Learned in 1912*, 100 IOWA L. REV. 2025 (2015); Keith N. Hylton, *Deterrence and Antitrust Punishment: Firms Versus Agents*, 100 IOWA L. REV. 2069 (2015); William E. Kovacic & Marc Winerman, *The Federal Trade Commission as an Independent Agency: Autonomy, Legitimacy, and Effectiveness*, 100 IOWA L. REV. 2085 (2015); Mark A. Lemley & Christopher R. Leslie, *Antitrust Arbitration and Illinois Brick*, 100 IOWA L. REV. 2115 (2015); Christopher R. Leslie, *The Commerce Requirement in Tying Law*, 100 IOWA L. REV. 2135 (2015); Alan J. Meese, *Antitrust Federalism and State Restraints of Interstate Commerce: An Essay for Professor Hovenkamp*, 100 IOWA L. REV. 2161 (2015); Barak Orbach, *The Durability of Formalism in Antitrust*, 100 IOWA L. REV. 2197 (2015); Spencer Weber Waller & Matthew Sag, *Promoting Innovation*, 100 IOWA L. REV. 2223 (2015). For the role of economics in antitrust, see generally

More recently, the current head of the FTC Bureau of Competition, Deborah Feinstein, stated:

In assessing quality arguments, we examine a variety of evidence. We look at the comparative quality of the hospitals merging. If the acquired hospital already has strong quality measurements comparable to those of the acquiring hospital, we may question the ability of the acquiring hospital to improve those metrics. If the acquiring hospital has made prior acquisitions, we will want to see whether those mergers resulted in quality improvements. The parties must explain more than just the processes and practices that the acquiring hospital system can transfer to an additional hospital; they need to address the specifics of how those processes and practices will benefit patients through improved care.¹⁸

On the whole, her policy goals are sensible. However, Feinstein does not provide guidance as to which quality measurements matter more than others. She also does not provide any guidance on how to interpret quality measurements in a comparable way to price efficiencies.

The lack of guidance has important policy implications for mergers generally and health care mergers in particular. Without an economically sensible approach that can provide certainty as to when and how to structure potential quality enhancing mergers, businesses will be unable to identify mergers that enhance quality and are less likely to violate antitrust law. Equally important, the St. Luke's merger lost on appeal to the U.S. Court of Appeals for the Ninth Circuit, in which the Ninth Circuit recently placed a nearly impossible burden on the merging parties to prove quality-enhancing efficiencies.¹⁹ As other merger cases continue to be litigated, the meaning of efficiencies in merger cases remains an open question.

Lawrence J. White, *Economics, Economists, and Antitrust: A Tale of Growing Influence*, in *BETTER LIVING THROUGH ECONOMICS* 226 (John J. Siegfried ed., 2010). For case law analysis, see *Fed. Trade Comm'n v. Staples, Inc.*, 970 F. Supp. 1066, 1088–90 (D.D.C. 1997). *Staples* started this trend. Because agencies want to win cases, they use ordinary course business documents to help shape a story. There may be overreach with regard to such documents when they take on a life on their own and drive the courts, rather than the economic effects. See, e.g., *United States v. Bazaarvoice, Inc.*, No. 13-cv-00133-WHO, 2014 WL 203966, at *19–20 (N.D. Cal. Jan. 8, 2014); *United States v. H & R Block, Inc.*, 833 F. Supp. 2d 36, 52–54 (D.D.C. 2011).

18. Deborah L. Feinstein, Dir. Bureau of Competition, Fed. Trade Comm'n, *Antitrust Enforcement in Health Care: Proscription, Not Prescription* 11 (June 19, 2014), available at http://www.ftc.gov/system/files/documents/public_statements/409481/140619_aco_speech.pdf. More recently Feinstein has suggested that the best case for hospitals to prove quality is if they have a track record of quality improvements in previous mergers. *A Discussion with Director of the Bureau of Competition at the FTC Deborah L. Feinstein*, *ANTITRUST HEALTH CARE CHRON.*, Oct. 2014, at 6. Of course, this would be a problem for a hospital that has never been involved in a merger before.

19. *Saint Alphonsus Med. Ctr.–Nampa Inc. v. St. Luke's Health Sys., Ltd.*, 778 F.3d 775, 793 (9th Cir. 2015); see Brief for Amici Curiae International Center of Law & Economics & Medicaid

This Essay proceeds as follows. First, it provides a discussion of the welfare effects on quality and its implications for antitrust analysis. The Essay then explores quality analysis both in the 2010 Merger Guidelines and in antitrust case law. In doing so, the Essay identifies areas both of clarity and ambiguity regarding quality-enhancing efficiencies policy. The Essay then draws parallels to an efficiency analysis of quality under rule of reason analysis, in which the Essay offers examples of RPM and tying of franchising contracts. Thereafter, the Essay addresses how agencies and courts should treat quality efficiencies in mergers. In doing so, the Essay draws upon the existing academic literature in empirical industrial organization economics and public health on measurements of what is hospital quality in a consolidating health care marketplace. The Essay concludes by advocating for a more robust use of quality measurements as a guiding principle of merger law and policy, that is flexible enough for case-by-case analysis and that will provide for ease of administrability and better outcomes than the current system. It also suggests the need for an updated Commentary of the Merger Guidelines that explains what types of quality measurements are better than others in general and for certain industries.

II. WELFARE EFFECTS OF QUALITY

A. BASIC ANALYSIS

Some mergers may improve the quality of the merged firm's output.²⁰ Any improved quality must be a result of the merger for the courts or antitrust enforcers to recognize the efficiencies of the merger. Any quality improvements that are not a direct result of the specific merger will not be recognized.²¹ If the quality change can be realized without the consolidation, then the quality change will not offset any reduction in competition.²² Consequently, in what follows, the quality changes are assumed to be merger specific, i.e., the quality improvement is a product of the merger and cannot be realized without the merger.

Consumers prefer higher-quality over lower-quality goods and services. Thus, when quality improves, consumers are willing to pay more for the same quantity of the good. Initially, assume that improved quality leads to a parallel shift in demand for the good. The effect on consumer welfare is ambiguous. In fact, consumer surplus may rise, fall, or stay the same depending on what happens to price.

Defense Fund in Support of Defendants-Appellants Urging Reversal at 21, *Saint Alphonsus Med. Ctr.-Nampa Inc.*, 778 F.3d 775, 2014 WL 2958116 at *21.

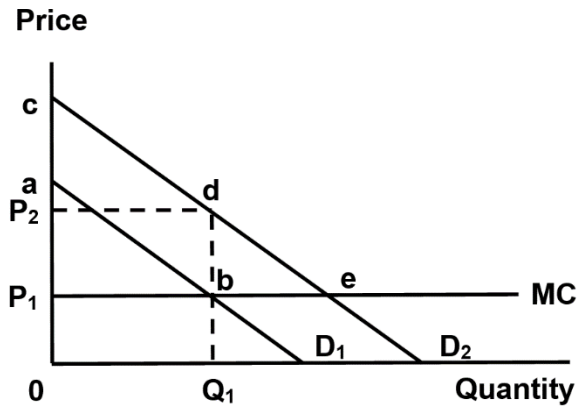
20. Quality is a general term that acquires meaning in specific context. It may refer to durability, fit and finish, style, color fastness, taste, texture, freedom from defects, and the like.

21. 2010 MERGER GUIDELINES, *supra* note 9, at 29-30.

22. *Id.*

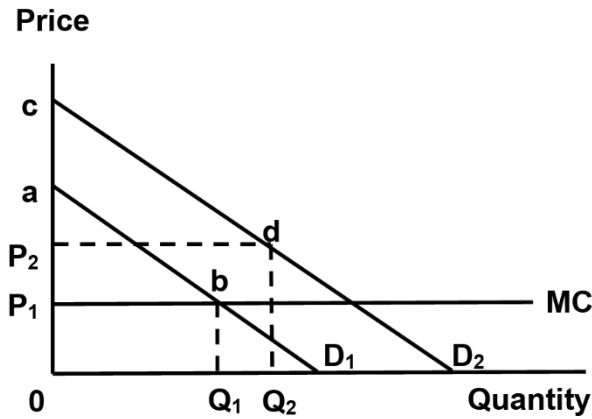
In Figure 1, D_1 represents the demand for a company's products or services before the merger and the corresponding quality improvement. The supply is not restricted by the marginal cost ("MC"). The pre-merger price and quantity are P_1 and Q_1 , respectively. Following the merger, quality of the output improves and demand shifts to D_2 . If the price, after the merger, rises to P_2 , quantity will not change. In other words, none of the quality change is "passed on" so to speak. In this case, consumer surplus will be unchanged. Prior to the merger, consumer surplus was equal to the triangular area abP_1 . Following the merger, consumer surplus is equal to the area of cdP_2 . The area represented by abP_1 and cdP_2 are precisely the same size. To be sure, the enhanced market power leads to some allocative inefficiency, because consumer surplus would rise to the area represented by ceP_1 if the merger produced the quality improvement without enhancing market power. But this is not the relevant comparison, because the quality improvement and the enhanced market power are inextricably intertwined (by assumption). On economic grounds, therefore, there is no reason to approve or disapprove the merger.

Figure 1



In Figure 2, D_1 , D_2 , and MC from Figure 1 have been reproduced. In this case, however, assume that the increased market power leads to a price increase to P_2 , which leads to an increase in the quantity purchased. As long as quantity increases beyond Q_1 , consumer surplus will rise. The pre-merger consumer surplus is again equal to the area abP_1 . The post-merger consumer surplus is equal to area cdP_2 , which is larger than abP_1 . If the merger is accompanied by an increase in market power, there will be some allocative inefficiency, but this is not relevant for antitrust policy purposes. What is important is that consumer surplus rises with the merger. On economic grounds, therefore, this merger should be applauded.

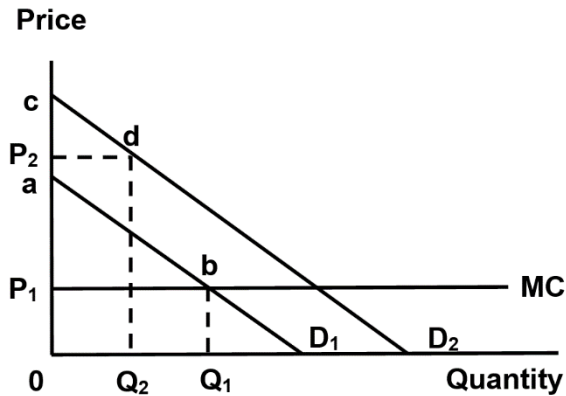
Figure 2



In Figure 3, the merger enhances both quality and market power. Price rises to P_2 and quantity falls to Q_2 . In this case, consumer surplus necessarily falls. The pre-merger consumer surplus is, of course, area abP_1 . The post-merger consumer surplus is area cdP_2 , which is smaller than area abP_1 . Without more, this merger should not be approved on welfare grounds.

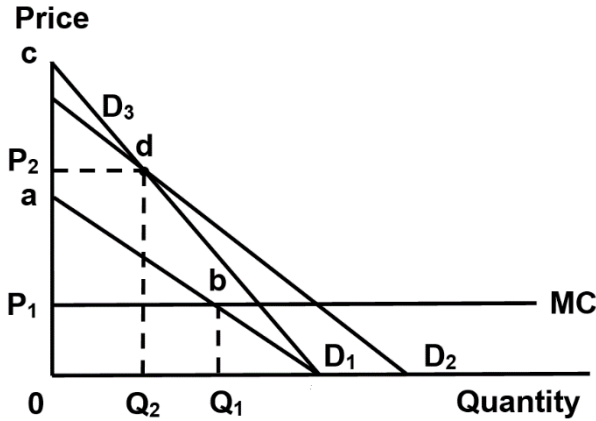
In these three cases, the quality improvement associated with the merger led to the same shift in demand, but the welfare changes were driven by the extent of the increase in market power. No legitimate inferences can be drawn from the fact that the post-merger price rose. In the case of a parallel shift in demand, it is the quantity change that drives the welfare result. Thus, it is tempting to use a quantity test. If the post-merger quantity will be higher, then the merger will improve consumer welfare. If the post-merger quantity will be lower, then the welfare effect will be negative. But analysts should avoid such a quantity analysis since it will not necessarily shed light on what happens to consumer welfare.

Figure 3



Consider Figure 4. In this case, the improved quality causes D_1 to rotate to D_3 , which has been drawn so it intersects D_2 at the point defined by P_2 and Q_2 . Now, the relevant comparison is between the pre-merger consumer surplus of abP_1 and the post-merger consumer surplus of cdP_2 , which may well be larger than abP_1 . Thus, there is no easy test unless one knows that the demand shift is parallel.

Figure 4



These examples illustrate how changes in quality may lead to different competitive outcomes. The next section explores how theories of quality enhancing efficiencies are implemented in antitrust policy.

B. QUALITY EFFICIENCIES UNDER THE MERGER GUIDELINES AND CASE LAW

The guiding principles of merger policy in the United States are found within the various iterations of Horizontal Merger Guidelines.²³ Though the first Merger Guidelines appeared in 1968, they began to take hold more rapidly in the 1980s when the 1982 and 1984 Horizontal Merger Guidelines were created, and in the 1990s when the 1992 Horizontal Merger Guidelines were also created and then revised in 1997 in the courts.²⁴ More specific to the discussion of merger efficiencies, an efficiencies section was added to the 1992 Horizontal Merger Guidelines in 1997.²⁵ Very little was changed in the

23. See D. Daniel Sokol, *Antitrust, Institutions, and Merger Control*, 17 GEO. MASON L. REV. 1055, 1105–09 (2010) (providing a brief history of the merger guidelines).

24. Hillary Greene, *Guideline Institutionalization: The Role of Merger Guidelines in Antitrust Discourse*, 48 WM. & MARY L. REV. 771, 781, 786, 803 & n.117 (2006). See generally Greene & Sokol, *supra* note 1.

25. See William J. Kolasky & Andrew R. Dick, *The Merger Guidelines and the Integration of Efficiencies into Antitrust Review of Horizontal Mergers*, 71 ANTITRUST L.J. 207, 232 (2003) (“[T]he

efficiencies analysis between the 1992 Merger Guidelines that were revised in 1997 (“1992/97 Merger Guidelines”) and the 2010 Merger Guidelines.²⁶

The 2010 Merger Guidelines explain that “[c]ognizable efficiencies are merger-specific efficiencies that have been verified and do not arise from anticompetitive reductions in output or service.”²⁷ Courts have cited to this language in decisions that utilize the 2010 Merger Guidelines.²⁸ More generally, as with the previous 1992/97 Merger Guidelines, the 2010 Merger Guidelines have been accepted by courts to guide case law.²⁹

It is also important to note that the 2010 Merger Guidelines also impact what occurs in the shadow of the law before the agencies as they “will make a difference . . . in connection with the exercise of prosecutorial discretion.”³⁰ Additionally, the agencies’ 2006 Commentary on the Merger Guidelines provides a comprehensive summary up to that time of the issuance of the Commentary when agencies apply efficiencies to merger cases.³¹ Most of the examples provided in the Commentary focus on price efficiencies.

The reason that agency guidance is so important in the area of merger efficiencies generally and quality efficiencies in particular is that no court has yet held that a challenged merger possesses efficiencies that are sufficient to overcome potential anticompetitive effects of a merger. Indeed, most merger cases have only a short discussion of efficiencies.

Some decided cases have discussed quality efficiencies. Before undertaking a descriptive analysis of those cases, it is first crucial to note that decided cases suffer from a selection bias.³² Litigated cases will tend to be cases

courts have largely adopted the analytical framework for evaluating efficiency claims that is set out in the Guidelines.”).

26. One limitation to the 2010 Merger Guidelines (and its predecessors) is that they are not statute and not case law. *See* 2010 MERGER GUIDELINES, *supra* note 9, at 1 (“[The Guidelines] may also assist the courts in developing an appropriate framework for interpreting and applying the antitrust laws in the horizontal merger context.”). However, they help guide case law. Sokol & Fishkin, *supra* note 1, at 53–54. This is particularly true given that the Supreme Court has not provided substantive guidance on mergers since the 1970s. *See generally* United States v. Gen. Dynamics Corp., 415 U.S. 486 (1974).

27. 2010 MERGER GUIDELINES, *supra* note 9, at 30.

28. *United States v. H & R Block, Inc.*, 833 F. Supp. 2d 36, 89 (D.D.C. 2011).

29. *See id.* *See generally* ProMedica Health Sys., Inc. v. Fed. Trade Comm’n, 749 F.3d 559 (6th Cir. 2014); *Saint Alphonsus Med. Ctr.–Nampa, Inc. v. St. Luke’s Health Sys., Ltd.*, Nos. 1:12-CV-00560-BLW, 1:13-CV-00116-BLW, 2014 WL 407446 (D. Idaho Jan. 24, 2014); *United States v. Bazaarvoice, Inc.*, No. 13-cv-00133-WHO, 2014 WL 203966 (N.D. Cal. Jan. 8, 2014); *Fed. Trade Comm’n v. OSF Healthcare Sys.*, 852 F. Supp. 2d 1069 (N.D. Ill. 2012); *Fed. Trade Comm’n v. Lab. Corp. of Am.*, No. SACV 10-1873 AG (MLGx), 2011 WL 3100372 (C.D. Cal. Mar. 11, 2011).

30. Robert Pitofsky, *Efficiencies in Defense of Mergers: Two Years After*, 7 GEO. MASON L. REV. 485, 485 (1999).

31. *See* FED. TRADE COMM’N & U.S. DEP’T OF JUSTICE, COMMENTARY ON THE HORIZONTAL MERGER GUIDELINES 49–59 (2006), available at <http://www.usdoj.gov/atr/public/guidelines/215247.pdf>.

32. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 1–2 (1984).

that are close.³³ As a result, the easy efficiency cases may not be seen in court. Further, most of the time there is a correlation between quality and price effects regarding efficiencies versus anticompetitive effect.³⁴ Sometimes that may not be the case.³⁵ There has yet to be a decided case in which the quality-enhancing efficiencies were in contrast to price based anticompetitive effects as a result of the same merger.

The types of cases in which efficiency claims may be accepted by the courts therefore do not get litigated. However, because the white papers that the merging parties provide the agencies are confidential, we simply do not see the very best cases regarding efficiencies. Instead, these transactions simply receive approval.

A number of efficiency claims have been litigated in court since the establishment of the 1992/97 Merger Guidelines.³⁶ Not all efficiency claims address quality claims. In fact, quality arguments are less common in litigated cases than price-related efficiencies. Nevertheless, some case law has developed to suggest how courts address the issue of quality efficiencies.

The one case in which the question of efficiencies was significantly analyzed was in the baby foods merger between Heinz and Beech-Nut, which would have led to a market with the dominant player Gerber and the combined Heinz/Beech-Nut.³⁷ Supermarkets always carried Gerber but almost always carried only one of Heinz or Beech-Nut. The merging parties claimed efficiencies on both price (due primarily to shuttering an antiquated factory in upstate New York) and quality (based on Beech-Nut's superior-tasting baby food). In deciding whether the merger violated antitrust law, the

33. Robert Pitofsky, Professor, Georgetown Univ. Law Center, Panel Discussion at the Dep't of Justice & Fed. Trade Comm'n Merger Workshop: Efficiencies/Dynamic Analysis/Integrated Analysis 82-83 (Feb. 19, 2004), *available at* <http://www.justice.gov/atr/public/workshops/docs/40219ftc.pdf> ("[T]here was a comment that courts almost never say [a merger is] illegal, but because of the efficiencies, I'll make it—I'll call it legal. I believe the reason for that is the agency doesn't bring cases that are barely illegal but with substantial efficiencies. And therefore, the courts haven't had a shot at this, and I'm not sure they're going to get a shot very soon, because the agencies are very sensitive to claims of efficiency."); *see also* George S. Cary, Cleary Gottlieb Steen & Hamilton LLP, Testimony to the Antitrust Modernization Commission: Efficiencies in Merger Analysis: From Both Sides Now 16 (Nov. 17, 2005), *available at* http://govinfo.library.unt.edu/amc/commission_hearings/pdf/Statement_Cary_final.pdf ("[T]he government will rarely litigate cases in the absence of fairly clear evidence of a likely anticompetitive effect that would be difficult to overcome with efficiencies in any event.").

34. WILLIAM B. VOGT & ROBERT TOWN, HOW HAS HOSPITAL CONSOLIDATION AFFECTED THE PRICE AND QUALITY OF HOSPITAL CARE? 8 (2006), *available at* http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2006/rwjf12056/subassets/rwjf12056_1 (showing mixed results but the studies with strongest results of hospital consolidation show a decline in quality of care).

35. Mark V. Pauly, *The Trade-Off Among Quality, Quantity, and Cost: How to Make It—If We Must*, 30 HEALTH AFF. 574, 578 (2011) ("[E]ven to imply that quality could be lower in some aspects—and that lower quality at lower price could be desirable—is challenging in health care because that idea has been taboo for so long.").

36. *See generally* Greene & Sokol, *supra* note 1.

37. Fed. Trade Comm'n v. H.J. Heinz Co., 246 F.3d 708 (D.C. Cir. 2001).

U.S. Court of Appeals for the District of Columbia articulated that the merging parties did not meet the threshold for a successful efficiencies claim under the 1992/97 Merger Guidelines. However, the D.C. Circuit, after noting the qualitative-enhancing efficiency argument, ignored the quality efficiencies and focused its analysis exclusively on the price efficiencies in its decision and it reversed the district court and found for the FTC.³⁸

The D.C. Circuit noted that “the high market concentration levels present in this case require, in rebuttal, proof of *extraordinary efficiencies*, which the appellees failed to supply,”³⁹ whereas the district court credited the quality efficiencies in terms of the flavor of the baby food.⁴⁰ What extraordinary means in either cost or quality contexts remains unclear in court decisions since *Heinz*. Though neither the words “econometric” nor “quantitative” are explicitly mentioned in the decision, cases involving efficiencies since *Heinz* have a quantitative element to them.

Other cases that predate the 2010 Merger Guidelines discussed quality-enhancing efficiencies, but in a more limited way. The other pre-2010 Merger Guidelines cases that addressed quality efficiencies have been hospital cases. In the *Butterworth* merger of two Grand Rapids, Michigan, hospitals, the court was convinced by Butterworth’s pledge to “serve all members of the community, without regard to ability to pay.”⁴¹ Without much discussion (relative to discussions on cost-based efficiencies), it also noted “[w]hile both hospitals are presently well-maintained, there is no question that the physical limitations of the Blodgett site significantly hinder Blodgett’s ability to continue to successfully compete with Butterworth and attract the best qualified physicians as medical services and technology continue to evolve.”⁴² Similarly, in *Long Island Jewish Medical Center*, a merger between Long Island Jewish Medical Center and North Shore Health Systems, Inc., the court allowed the merger to be consummated based in part because the non-profit hospital mission was “to provide high quality health care to economically disadvantaged and elderly members of the community.”⁴³

38. *Id.* at 721–22. A later FTC merger retrospective suggests that the FTC erred in blocking the deal. See generally Viola Chen, *The Evolution of the Baby Food Industry: 2000–2008* (Bureau of Econ., Fed. Trade Comm’n, Working Paper No. 297, 2009).

39. *Heinz*, 246 F.3d at 720 (emphasis added).

40. Fed. Trade Comm’n v. H.J. Heinz, Co., 116 F. Supp. 2d 190, 199 (D.D.C. 2000) (“The Commission does not seriously dispute the proposition that the merger will result in better recipes for former Heinz buyers and value pricing for former Beech–Nut buyers.”). The appellate court further explained that “given the high concentration levels, the court must undertake a rigorous analysis of the kinds of efficiencies being urged by the parties in order to ensure that those ‘efficiencies’ represent more than mere speculation and promises about post-merger behavior.” *Heinz*, 246 F.3d at 721.

41. Fed. Trade Comm’n v. Butterworth Health Corp., 946 F. Supp. 1285, 1306 (W.D. Mich. 1996), *aff’d*, No. 96-2440, 1997 WL 420543, at *1 (6th Cir. July 8, 1997).

42. *Id.* at 1301.

43. United States v. Long Island Jewish Med. Ctr., 983 F. Supp. 121, 149 (E.D.N.Y. 1997).

In *FTC v. Tenet Health*, a case involving the merger of two hospitals in Poplar Bluff, Missouri, the U.S. Court of Appeals for the Eighth Circuit took the lower court to task for not sufficiently analyzing the quality claim, noting “[t]he reality of the situation in our changing health care environment may be that Poplar Bluff cannot support two high-quality hospitals.”⁴⁴ The Eighth Circuit also admonished the lower court for placing “an inordinate emphasis on price competition.”⁴⁵

Quality improvements alone, however, do not seem to warrant procompetitive treatment. In *FTC v. Evanston Northwestern/Highland Park*, a merger between two suburban Chicago area hospitals, the Commission found for the FTC because the quality improvements did not result from merger-specific savings and that these quality improvements did not explain the post-merger price increases.⁴⁶ The FTC remedy in *Evanston* suggests that the Commission found some merit to the quality claims. While complaint counsel wanted a full divestiture, the Commission chose a remedy short of structural separation because of the quality improvement in cardiac surgery at Highland Park, which would not have had the volume of patients without the merger to sustain this improvement.⁴⁷

Since the introduction of the 2010 Merger Guidelines, a number of cases have explored, although briefly, how quality-enhancing efficiencies may play out in the merger context. In *FTC v. Rockford/OSF*, a three-to-two hospital merger in Rockford, Illinois, the merging parties claimed efficiencies based on best practices related to clinical effectiveness. The court was skeptical of such claims and believed that reaching greater clinical effectiveness was possible outside of the merger context.⁴⁸ Similarly, the court rejected quality-based efficiency arguments based on “Centers of Excellence”—wherein the combined hospitals could use such “Centers” to recruit specialists—as too speculative as outcomes that might be realized without a merger.⁴⁹

In the St. Luke’s Hospital acquisition of the Saltzer physician group, the parties made a series of unsuccessful claims regarding quality efficiencies before the district court. The parties argued that the primary reason for the merger was to eliminate the fee-for-service pay system and to move to a risk-based integrated delivery system.⁵⁰ On the one hand, the court was

44. Fed. Trade Comm’n v. Tenet Health Care Corp., 186 F.3d 1045, 1055 (8th Cir. 1999).

45. *Id.* at 1054.

46. *In re Evanston N.W. Healthcare Corp.*, No. 9315, 2007 WL 2286195, at *59–60 (F.T.C. Aug. 6, 2007) (Opinion of the Commission).

47. *In re Evanston Nw. Healthcare Corp.*, No. 9315, at 9 (F.T.C. Apr. 24, 2008) (Opinion of the Commission on Remedy), available at www.ftc.gov/sites/default/files/documents/cases/2008/04/080428commopiniononremedy.pdf.

48. Fed. Trade Comm’n v. OSF Healthcare Sys., 852 F. Supp. 2d 1069, 1092–93 (N.D. Ill. 2012).

49. *Id.* at 1093–94.

50. Saint Alphonsus Med. Ctr.–Nampa, Inc. v. St. Luke’s Health Sys., Ltd., Nos. 1:12-CV-00560-BLW, 1:13-CV-00116-BLW, 2014 WL 407446, ¶¶ 161–77 (D. Idaho Jan. 24, 2014).

sympathetic to the merging parties for understanding the importance of vertical integration to improve quality.⁵¹ On the other hand, the court found that some of the efficiencies, such as number of doctors employed by the hospital, was not linked to the merger⁵² and that other ways to achieve integration-related efficiencies were possible.⁵³ On the issue of electronic records, the court found that implementation of the Epic system did not require a merger and hence these efficiencies did not count as merger-specific.⁵⁴ The Circuit court agreed.⁵⁵

In *United States v. Bazaarvoice*, the merging parties claimed quality efficiencies based on more data that would be available for data analytics.⁵⁶ The district court found that the efficiencies were not verifiable and therefore not merger-specific and that sharing of data short of the merger could have accomplished the same ends.⁵⁷

Overall, this descriptive analysis demonstrates that courts have not provided sufficient weight to quality efficiencies as they should and have not sufficiently articulated what sort of quality-enhancing efficiencies based on empirical data are more persuasive. Without using the same substantive standard for evidence as between price and quality efficiencies, courts may rule that procompetitive effects in a merger due to increased quality of care would not be sufficient to overcome a merger challenge.

C. QUALITY ENHANCING EFFICIENCIES UNDER A RULE OF REASON ANALYSIS

Federal courts have the institutional capability to undertake quality-based efficiency-enhancing analysis. We provide two examples—RPM and tying in franchising contracts—to illustrate how courts have been able to correctly adjudicate quality issues. Such adjudication is particularly relevant in the merger context where an increasing number of challenged mergers in recent years have been post-consummated mergers. These opinions, therefore, resemble a rule of reason analysis. These two examples suggest that merger courts (and agencies) would be well-served to undertake a more rigorous analytical approach to quality-enhancing merger efficiencies.

51. *Id.* at *1 (“St. Luke’s saw this major shift coming some time ago. And they are to be complimented on their foresight and vision. They started purchasing independent physician groups to assemble a team committed to practicing integrated medicine in a system where compensation depended on patient outcomes.”).

52. *Id.* ¶ 185 (“[A] committed team can be assembled without employing physicians . . .”).

53. *See id.* ¶¶ 161–77.

54. *Id.* ¶ 204.

55. *See supra* note 21.

56. *United States v. Bazaarvoice, Inc.*, No. 13-cv-00133-WHO, 2014 WL 203966, ¶¶ 80–88 (N.D. Cal. Jan. 8, 2014).

57. *Id.* ¶ 315.

1. Resale Price Maintenance

RPM is a business practice that restrains the pricing decisions of resellers. In its classic form, a manufacturer sells its product to its distributors on the condition that they not resell that product below a specific price. Thus, RPM puts a floor under the distributor's price to their customers. This practice was found to be illegal per se in *Dr. Miles Medical Co. v. John D. Park & Sons Co.*, a 1911 Supreme Court decision.⁵⁸ After nearly 100 years, the Supreme Court overturned *Dr. Miles* in *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*⁵⁹ The weight of scholarly research revealed that RPM was neither invariably anticompetitive nor invariably procompetitive.⁶⁰ Consequently, a rule of reason analysis seemed necessary to determine whether a particular instance of RPM was lawful or unlawful. After *Leegin*, a rule of reason analysis is now required.

RPM can be used to facilitate a horizontal conspiracy among manufacturers, among distributors, or both.⁶¹ These situations are undesirable and manufacturers and distributors should avoid them. As price rises and quantity falls, both consumer welfare and social welfare are reduced. Without some colorable claim of enhanced efficiency, the practice will have no redeeming virtue and will fail a rule of reason test. But the existence of an

58. *Dr. Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373, 392 (1911). This decision received a good deal of scholarly criticism that began long ago. For an account of the early reactions, see generally William Breit, *Resale Price Maintenance: What Do Economists Know and When Did They Know It?*, 147 J. INSTITUTIONAL & THEORETICAL ECON. 72 (1991).

59. *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 882 (2007).

60. Raymond Deneckere et al., *Demand Uncertainty and Price Maintenance: Markdowns as Destructive Competition*, 87 AM. ECON. REV. 619, 619, 625, 634 (1997) (finding both producer and consumer surplus can be higher in RPM schemes than in market-clearing scenarios); Benjamin Klein, *Competitive Resale Price Maintenance in the Absence of Free Riding*, 76 ANTITRUST L.J. 431, 471–81 (2009) (stating RPM may frequently have procompetitive effects); Benjamin Klein & Kevin M. Murphy, *Vertical Restraints as Contract Enforcement Mechanisms*, 31 J.L. & ECON. 265, 280 (1988) (positing that RPM functions not as nonprice competition between retailers but as a way to ensure retailers perform contractual obligations); Howard P. Marvel, *The Resale Price Maintenance Controversy: Beyond the Conventional Wisdom*, 63 ANTITRUST L.J. 59, 59–62, 92 (1994) (arguing economic theory cannot support a per se ban on RPM); Howard P. Marvel & Stephen McCafferty, *Resale Price Maintenance and Quality Certification*, 15 RAND J. ECON. 346, 347–49 (1984) (explaining anticompetitive motives do not necessarily account for RPM behavior); Richard E. Romano, *Double Moral Hazard and Resale Price Maintenance*, 25 RAND J. ECON. 455, 464 (1994) (“the optimal contract generally entails [RPM]”); Joseph J. Spengler, *Vertical Integration and Antitrust Policy*, 58 J. POL. ECON. 347, 351 (1950) (finding “[v]ertical integration . . . does not necessarily suppress competition”); Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86, 104–05 (1960) (finding manufacturers may have reason to support RPM because it may decrease competitive pressures); Sebastian van Baal & Christian Dach, *Free Riding and Customer Retention Across Retailers' Channels*, 19 J. INTERACTIVE MARKETING 75, 75 (2005) (finding more than 20% of consumers are free riders); Ralph A. Winter, *Vertical Control and Price Versus Nonprice Competition*, 108 Q.J. ECON. 61, 61–63 (1993) (finding no one theory fully explains RPM behavior).

61. HERBERT HOVENKAMP, ENTERPRISE AND AMERICAN LAW, 1836–1937, at 340–47 (1991) (describing a conspiracy among distributors that explained the use of RPM in the *Dr. Miles* case); see also Telser, *supra* note 60, at 96–99 (explaining manufacturer cartel motivation for RPM).

RPM program is not evidence of a horizontal price-fixing conspiracy among manufacturers or among distributors.

2. Promotional Uses of RPM

Several procompetitive motives have been offered for RPM.⁶² The most prominent example involves product-specific services that must be provided by the distributor. The product-specific services often increase the quality of the physical product and thereby make the product more valuable to the buyer. For complicated consumer products, thorough instructions on the product's features and its proper use raise the quality of what the consumer purchases. Agricultural chemicals are more valuable with technical advice. Portland cement is more valuable to masonry contractors and ready-mix concrete dealers with technical support. In a very real sense, the quality of the physical product is enhanced by the addition of these complementary services. These increases in quality will tend to shift the demand function rightward. The increase in demand will increase the supplier's profits, but it may also improve consumer welfare even though the price rises. Under other circumstances, however, it will not increase consumer welfare and may even reduce social welfare.

Figure 5 illustrates the quality and demand function shift. D_1 represents final good demand without the quality-enhancing services and the supply is represented by S_1 . In the absence of the quality-enhancing services provided by the distributors, the equilibrium price and quantity will be P_1 and Q_1 , respectively. Now, suppose that the manufacturer wants its distributors to provide quality-enhancing services that increase the demand for its product. For many consumers, the services increase the value of the product. Because the value of the product increases when these quality-enhancing services are performed, the demand shifts from D_1 to D_2 .⁶³ These services are costly and, therefore, the supply curve will shift from S_1 to S_2 to reflect the increased cost. The new equilibrium is P_2 and Q_2 . In this case, the services not only lead to an increase in price from P_1 to P_2 , but quantity also increases from Q_1 to Q_2 because the vertical shift in demand exceeded the vertical shift in supply.⁶⁴

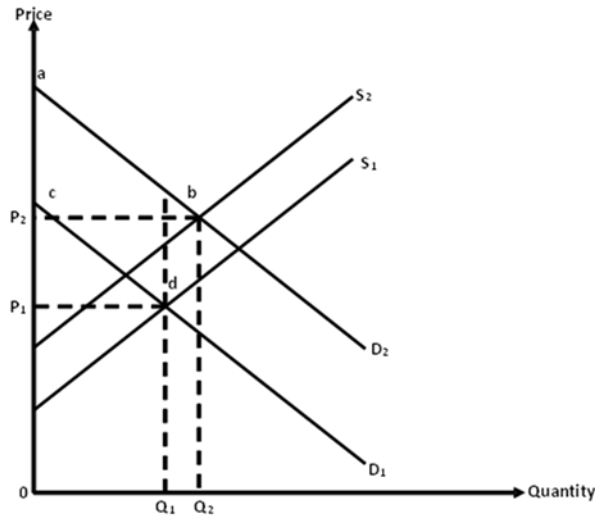
62. See, e.g., Marvel & McCafferty, *supra* note 60 (examining the role of RPM in protecting the investment of retailers that certify the quality of the products they carry); see also Romano, *supra* note 60, at 460-62 (highlighting that RPM is a means of correcting an incentive alignment problem); Telser, *supra* note 60, at 89-96 (discussing the product-specific services theory of RPM); George R. Ackert, Note, *An Argument for Exempting Prestige Goods from the Per Se Ban on Resale Price Maintenance*, 73 TEX. L. REV. 1185, 1199-203 (1995) (arguing that the prestige associated with prestige goods stems at least in part from their price and that prestige can be lost through discounting, as consumers would begin to think of those goods as ordinary).

63. In Figure 5, we assume that D_2 is parallel to D_1 , which means that every consumer places an equal value on the quality enhancing services. This, of course, may not be accurate; we deal with that possibility below. See *infra* notes 66-68 and accompanying text.

64. If this were not the case, the manufacturer would not push the quality-enhancing services because it would not be profitable to do so. The derived demand for the product by the

In this case, consumer surplus is unambiguously enhanced. Without the quality enhancing services, consumer surplus is represented by the triangular area cdP_1 . With those quality-enhancing services, however, consumer surplus rises to area abP_2 . This is clearly larger, and always will be, as long as the shift in demand is parallel and it results in a quantity increase.⁶⁵ In this context, RPM is used in a way that improves both consumer welfare and the manufacturer's profits. This use of RPM would be lawful under a rule of reason analysis regardless of whether the court is pursuing consumer welfare or social welfare.

Figure 5

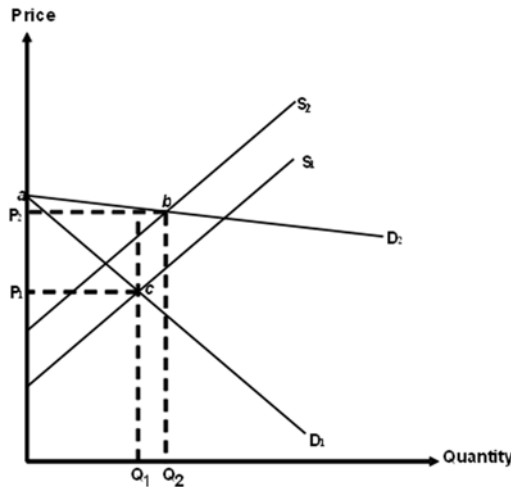


dealers would fall rather than rise and the manufacturer's profits would suffer. F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 541-48 (3d ed. 1990). F.M. Scherer and David Ross point out that such services will be expanded until no further gains exist. At this point, the increased cost of additional services will be precisely equal to the increased value of the product resulting from the increased services. *Id.* at 543-44.

65. Triangles abP_2 and cdP_1 are *similar* because the corresponding angles are equal. Since the base of abP_2 is larger than the base of cdP_1 , the area of the former must be larger than that of the latter. This will always be the case with a parallel shift in demand.

All consumers, however, may not value the services equally.⁶⁶ In our economic model, this means that the shift in demand will not be parallel. In Figure 6, the services lead to a rotation of demand from D_1 to D_2 . In this case, consumer surplus without the service is equal to area acP_1 and with the service it is equal to area abP_2 . In some cases, like the one depicted in Figure 6, consumer surplus will decline even though RPM is being used to protect quality-enhancing services. In other cases, however, it will increase.⁶⁷ Thus, the impact on consumer welfare is ambiguous on a priori grounds. As a result, the effect of RPM on consumer surplus is an empirical matter. For all practical purposes, however, estimating the effect of RPM on consumer surplus while controlling for all other influences is a daunting econometric challenge. This is, however, a challenge that can be undertaken, and courts do exactly this in a full rule of reason analysis.⁶⁸ The ability of courts to undertake an analysis involving quality-for-conduct suggests that a similar approach is possible in the merger context.

Figure 6



66. See William S. Comanor, *Vertical Price-Fixing, Vertical Market Restrictions, and the New Antitrust Policy*, 98 HARV. L. REV. 983, 990-92 (1985); F.M. Scherer, *The Economics of Vertical Restraints*, 52 ANTITRUST L.J. 687, 695-96 (1983).

67. As a result, the appropriate antitrust policy is unclear. See Roger D. Blair & James M. Fesmire, *The Resale Price Maintenance Policy Dilemma*, 60 S. ECON. J. 1043, 1043-44 (1994). Judge Richard Posner does not believe that this refinement can be handled in a judicial setting and, therefore, should be ignored. RICHARD A. POSNER, *ANTITRUST LAW* 176 (2d ed. 2001). Judge Posner may be right as a practical matter, but ignoring this refinement necessarily abandons the consumer welfare standard.

68. Michael A. Carrier, *The Real Rule of Reason: Bridging the Disconnect*, 1999 BYU L. REV. 1265, 1363-64 (discussing the way courts apply rule of reason analysis); Michael A. Carrier, *The Rule of Reason: An Empirical Update for the 21st Century*, 16 GEO. MASON L. REV. 827, 830 (2009) (discussing the factors courts consider in rule of reason suits).

In Figures 5 and 6, all of the corresponding prices and quantities are equal. As a result, RPM can lead to identical price and quantity increases, but different outcomes for consumer surplus. In Figure 5, RPM is reasonable, because both consumer welfare and social welfare increase due to RPM which makes the RPM presumably lawful. In contrast, the RPM plan depicted in Figure 6 is unreasonable in the sense that consumer surplus declines, but may not be unreasonable on social welfare grounds. It is clear that neither an output test nor a price test provides an answer to the question of whether a merger is reasonable. RPM is supposed to lead to higher prices—however, higher prices alone do not tell us what happens to welfare. As the results in Figures 5 and 6 show, somewhat surprisingly, an output test also fails to distinguish the effects on consumer welfare. Thus, the parties must embark on a difficult econometric journey to resolve the reasonableness inquiry. Whichever party bears the burden of proof will likely lose the battle.⁶⁹

3. Tying

Franchising provides an example in which courts have understood the quality dimension of competition. This should be instructive for agency analysis and for courts in cases involving quality competition in the merger context.

Franchising is pervasive in the U.S. economy.⁷⁰ It is a contractual form of vertical integration in which the franchisor depends upon independently owned and operated franchises to carry out downstream production and distribution. A hallmark of successful franchise chains is uniformity across locations. Quality uniformity is vital because we live in a mobile society. As consumers move from one location to another, they encounter significant search costs. These search costs are reduced by familiar trademarks and uniform quality. There is a reason why local residents in Gainesville, Florida, go to Burrito Brothers⁷¹ while visitors frequent Chipotle or Taco Bell. Irrespective of the quality level, consumers expect not to be disappointed when they visit Chipotle or Taco Bell.

An individual franchisee has an incentive to cut quality in order to reduce costs and thereby improve its profits. Consumers continue to be attracted to that location by the higher quality experience that they have enjoyed at other locations. Disappointment in the quality-cutting franchisee's location has a spillover effect on the rest of the chain. A dry hamburger at McDonald's with

69. Moving to the merger context, the appropriate burdens of proof in mergers are beyond the scope of this Essay, but certainly the burdens of proof in merger analysis impact case outcomes. For a recent example, see *In re Ardagh Grp. S.A.*, No. 131-0087, at 4–8 (F.T.C. Apr. 11, 2014) (Wright, Comm'r, dissenting), available at http://www.ftc.gov/system/files/documents/public_statements/568821/140411ardaghtmt.pdf.

70. For an extensive examination of franchising, see generally ROGER D. BLAIR & FRANCINE LAFONTAINE, *THE ECONOMICS OF FRANCHISING* (2005).

71. At least we do.

low-quality condiments in one location raises doubts in the consumer's mind regarding what to expect in other locations. Since there are alternative chains, consumers can switch. Thus, quality reductions at one franchised outlet can have an adverse effect on the chain and, therefore, on the franchisor.⁷² One solution to this problem is to tie input purchases to the franchise license.⁷³

A tying contract is a vertical restraint that involves a conditional sale. In its simplest form, the producer of product A agrees to sell that product, but only on the condition that the buyer also purchase product B. In this scenario, product A is the *tying good* while product B is the *tied good*. The situation can be more complicated. For example, there may be a collection of tied goods rather than just one. Moreover, tying may involve services and other intangibles. It may also extend to leases as well as sales. Finally, the tying arrangement may involve third parties, i.e., the buyer of A may have to buy the tied good B from a designated third party rather than from the seller of A. In all of these scenarios, however, the essence of tying is the condition that limits the buyer's freedom to purchase the tied good(s) where he deems optimal from his own perspective.

In the franchising context, the alleged tying good is usually the franchise license, which is normally subject to intellectual property protection. The tied goods may be other goods that are resold with little modification or they may be inputs into the production of a final good. An example of the former would be branded products such as Baskin-Robbins ice cream or Shell gasoline. The Baskin-Robbins franchisor licenses its franchisee on the condition that it buy Baskin-Robbins ice cream for resale.⁷⁴ Business format franchisors, such as Domino's Pizza, provide an example of the latter as they may license their franchisees on the condition that they buy certain inputs from the franchisor or a designated supplier. Domino's, for example, may require that its franchisees buy pizza dough and perhaps other ingredients necessary for a "real" Domino's pizza from Domino's or from a designated third party.⁷⁵

Through the judicious use of a tying contract, the franchisor can induce the same input usage and the same final output that would result under ownership integration.⁷⁶ To the extent that this benefits the franchisor at the

72. For an analytical development of this problem, see generally Roger D. Blair & David L. Kaserman, *A Note on Incentive Incompatibility Under Franchising*, 9 REV. INDUS. ORG. 323 (1994).

73. On the law and economics of tying, see generally Erik Hovenkamp & Herbert Hovenkamp, *Tying Arrangements*, in 2 THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS 329 (Roger D. Blair & D. Daniel Sokol eds., 2015).

74. *Krehl v. Baskin-Robbins Ice Cream Co.*, 664 F.2d 1348, 1350 (9th Cir. 1982).

75. *Queen City Pizza, Inc. v. Domino's Pizza, Inc.*, 124 F.3d 430, 440, 443 (3d Cir. 1997).

76. For proof of this proposition, see generally Roger D. Blair & David L. Kaserman, *Vertical Integration, Tying, and Antitrust Policy*, 68 AM. ECON. REV. 397 (1978).

franchisee's expense, there is apt to be conflict that may erupt in an antitrust suit.⁷⁷

Tying raises two antitrust concerns. First, buyers are allegedly coerced into purchasing the tied good(s) when they would prefer to buy from someone else. Thus, consumers are denied choice. Second, to the extent that buyers purchase the tied good(s) from the franchisor, they do not buy from rival suppliers of the tied good(s). Thus, tying appears to foreclose rivals, which permits the franchisor to overcharge its franchisees.

When tying is used to prevent opportunistic quality degradation, the practice should be treated as benign. The franchisor has no incentive to raise quality standards that are inconsistent with profit maximization. Thus, the level of quality selection will be found where the marginal return of enhanced quality is just equal to the marginal cost of enhanced quality.

The franchisor's use of tying arrangements is not an effort to leverage monopoly into the tied good market(s). Since there are some 2800 franchising opportunities in the United States,⁷⁸ it is doubtful that any franchisor has monopoly power in the franchise license market.

The franchisor is using the tying arrangement to "coerce" the franchisee, but the coercion is aimed at preventing quality degradation, which is not anticompetitive. Courts seem comfortable to address these quality concerns in the franchising context. Thus, it is not taxing of the courts (let alone antitrust agencies) to undertake the same sort of analysis for quality-enhancing efficiencies in the merger context.

III. HOW TO TREAT QUALITY-ENHANCING EFFICIENCIES IN MERGERS

There are not many empirical papers on the relation between market competition including mergers and health care quality.⁷⁹ We summarize the existing academic literature on quality in health care to demonstrate that enough research and best practices as to methods exists for the antitrust agencies to be guided in quantitative quality empirical measurements just as they are based on price-related measurements.

Ryan Mutter, Patrick Romano, and Herbert Wong broadly surveyed hospital mergers in 1999 and 2000 on 25 measurements of quality and had mixed results regarding consolidation and quality.⁸⁰ In contrast, Alison

77. In most instances, the franchisee is the plaintiff in a franchise tying suit. But a tying arrangement arguably forecloses rival suppliers of the tied goods. These foreclosed rivals may also file suit.

78. *Franchises A-Z*, FRANCHISING.COM, <http://www.franchising.com/franchises> (last visited Apr. 3, 2015).

79. Theoretical models suggest ambiguity regarding competition and quality of care. See generally David Dranove & Mark A. Satterthwaite, *The Industrial Organization of Health Care Markets*, in 1B HANDBOOK OF HEALTH ECONOMICS 1093 (Anthony J. Culyer & Joseph P. Newhouse eds., 2000).

80. Ryan L. Mutter et al., *The Effects of US Hospital Consolidations on Hospital Quality*, 18 INT'L J. ECON. BUS. 109, 109 (2011).

Cuellar and Paul Gertler found that the creation of hospital systems has increased market power rather than improved quality of care.⁸¹ They examined “patient-level annual hospital discharge data” to determine this.⁸² Patrick Romano and David Balan analyzed quality from short-term inpatient quality indicators, patient safety indicators and “measures of risk-adjusted mortality for heart attack patients, neonatal mortality, and obstetric trauma” in the Evanston–Highland Park merger.⁸³ They found little evidence that the merger improved quality.⁸⁴

Some scholarship shows an inverse relationship between quality and consolidation. Vivian Ho and Barton Hamilton examine the effect on the quality of care before and after hospital mergers in California, by examining hospital inpatient mortality for heart attack and stroke patients along with patient readmission rates. They find no merger effects on inpatient mortality but found negative effects post-merger regarding readmission rates.⁸⁵ Daniel Kessler and Mark McClellan look at similar quality-of-care indicators for acute-myocardial-infarction (“AMI”) patients across a range of hospitals.⁸⁶ They find that competition after 1990 improved quality of care.⁸⁷ AMI and pneumonia are the focus of a paper by Gautam Gowrisankaran and Robert Town.⁸⁸ In their analysis, HMO patients (but not Medicare patients) had better outcomes with competition.⁸⁹ Other papers include one from Daniel Kessler and Jeffrey Geppert, who examine heart attack care and find that increased competition increases welfare.⁹⁰ Nazmi Sari’s analysis shows that competition improved quality regarding wound infections.⁹¹ Yet, Robert Huckman analyzes consolidation’s effects on cardiac procedures and finds little impact in quality.⁹²

81. Alison Evans Cuellar & Paul J. Gertler, *How the Expansion of Hospital Systems Has Affected Consumers*, 24 HEALTH AFF. 213, 217 (2005).

82. *Id.* at 214.

83. Patrick S. Romano & David J. Balan, *A Retrospective Analysis of the Clinical Quality Effects of the Acquisition of Highland Park Hospital by Evanston Northwestern Healthcare*, 18 INT’L J. ECON. BUS. 45, 50 (2011).

84. *Id.* at 61.

85. Vivian Ho & Barton H. Hamilton, *Hospital Mergers and Acquisitions: Does Market Consolidation Harm Patients?*, 19 J. HEALTH ECON. 767, 768–69, 787–88 (2000).

86. Daniel P. Kessler & Mark B. McClellan, *Is Hospital Competition Socially Wasteful?*, 115 Q.J. ECON. 577, 594–600 (2000).

87. *Id.* at 601–02.

88. Gautam Gowrisankaran & Robert J. Town, *Competition, Payers, and Hospital Quality*, 38 HEALTH SERVICES RES. 1403 (2003).

89. *Id.* at 1417.

90. See generally Daniel P. Kessler & Jeffrey J. Geppert, *The Effects of Competition on Variation in the Quality and Cost of Medical Care*, 14 J. ECON. & MGMT. STRATEGY 575 (2005).

91. Nazmi Sari, *Do Competition and Managed Care Improve Quality?*, 11 HEALTH ECON. 571, 580–81 (2002).

92. Robert S. Huckman, *Hospital Integration and Vertical Consolidation: An Analysis of Acquisitions in New York State*, 25 J. HEALTH ECON. 58, 77 (2006).

Quality competition hospital papers also include vertical consolidation and managerial ability. Given the recent St. Luke's litigation between a hospital and a physician group, we also note an emerging literature involving mergers between hospitals and physician groups.⁹³ Finally, managerial quality may be impacted by competition.⁹⁴

Based on these articles, the impact of competition and consolidation on hospital quality in the United States is not always clear. This could be due to the proxy variables including inpatient mortality, re-admission, discharge, and others that scholars used to measure the quality and/or due to highly stylized facts based on specific markets. Our point in this literature review is simply to establish that it is possible to quantify quality concerns and that quantification, rather than the current preference at the agencies for storytelling, should guide quality-enhancing efficiency analysis before the agencies and courts.

The empirical work to date begs a more general question: What then should the appropriate quality measurements be? Health administration uses many quality measurements. Perhaps the best known is the "structure-process-outcome approach."⁹⁵ One common approach is to address adjusted mortality, in part because this data is easy to obtain.⁹⁶ Using such an approach is not always easy, as there may be high quality in one area but not in other areas. Nevertheless, there is emerging empirical literature in this area.⁹⁷ Such a literature suggests that it is possible for agencies and courts to utilize credible quality measurements.

Quality measures are now so common that the Robert Wood Johnson Foundation maintains a directory which potential patients can use to find high-quality health care across the country.⁹⁸ There are also international-based qualities of care measurements. The Organisation for Economic Co-

93. See generally Caroline S. Carlin et al., *Changes in Quality of Health Care Delivery After Vertical Integration*, 50 HEALTH SERVICES RES. (forthcoming 2015), available at <http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12274/pdf>; Wenke Hwang et al., *Effects of Integrated Delivery System on Cost and Quality*, 19 AM. J. MANAGED CARE e175 (2013) (providing a literature review).

94. Nicholas Bloom et al., *The Impact of Competition on Management Quality: Evidence from Public Hospitals* 3-5 (Nat'l Bureau of Econ. Research, Working Paper No. 16,032, 2010), available at <http://www.nber.org/papers/w16032.pdf>.

95. See Avedis Donabedian, *Evaluating the Quality of Medical Care*, 44 MILBANK MEMORIAL FUND Q. 166, 188-89 (1966); Avedis Donabedian, *The Quality of Care: How Can It Be Assessed?*, 260 J. AM. MED. ASS'N 1743, 1745-46 (1988).

96. See, e.g., Adam J. Gadzinski et al., *Utilization and Outcomes of Inpatient Surgical Care at Critical Access Hospitals in the United States*, 148 J. AM. MED. ASS'N SURGERY 589, 591-93 (2013); Karen E. Joynt et al., *Quality of Care and Patient Outcomes in Critical Access Rural Hospitals*, 306 J. AM. MED. ASS'N 45, 45, 48 (2011).

97. Patrick S. Romano & Ryan Mutter, *The Evolving Science of Quality Measurement for Hospitals: Implications for Studies of Competition and Consolidation*, 4 INT'L J. HEALTH CARE FIN. & ECON. 131, 132 (2004) (analyzing and reviewing the literature in this area).

98. *Comparing Health Care Quality: A National Directory*, ROBERT WOOD JOHNSON FOUND., <http://www.rwjf.org/en/research-publications/find-rwjf-research/2013/09/national-directory.html> (last visited Mar. 16, 2015).

operation and Development (“OECD”) and the World Health Organization (“WHO”) also have measurements based on “best practices.”⁹⁹

Quality-based quantitative measurements are in fact part of daily life for many hospitals, and these measurements are a function of Centers for Medicare and Medicaid Services (“CMS”) service quality measures. The CMS is an effort by the Government “to link Medicare’s payment system to a value-based system to improve healthcare quality.”¹⁰⁰ One of CMS’s programs is a Medicare Hospital Value Based Purchasing (“VBP”) Program¹⁰¹ and the second is a non-payment policy for conditions that are acquired in hospitals.¹⁰² These programs have shifted hospital reimbursement schemes to quality outcome-based pay for performance.¹⁰³ Under VBP, the government reimburses based on processes of care (13 measurements), patient experiences (one measurement) and outcomes (three mortality measurements) based on a total performance score.¹⁰⁴

A number of more recent academic studies measure quality competition, such as in the United Kingdom and the Netherlands, where competition is

99. CHARLES SHAW, WORLD HEALTH ORG. EUR., HOW CAN HOSPITAL PERFORMANCE BE MEASURED AND MONITORED? 5 (2003), available at http://www.euro.who.int/__data/assets/pdf_file/0009/74718/E82975.pdf?ua=1; Edward Kelley & Jeremy Hurst, *Health Care Quality Indicators Project Conceptual Framework Paper 27–28* (Org. for Econ. Co-operation & Dev., Health Working Paper No. 23, 2006), available at <http://dx.doi.org/10.1787/440134737301>.

100. *Hospital Value-Based Purchasing*, CENTERS FOR MEDICARE & MEDICAID SERVICES, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/hospital-value-based-purchasing/index.html> (last visited Apr. 3, 2015).

101. Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long Term Care; Hospital Prospective Payment System and Fiscal Year 2014 Rates; Quality Reporting Requirements for Specific Providers; Hospital Conditions of Participation; Payment Policies Related to Patient Status; Final Rule, 78 Fed. Reg. 50,496, 50,678 (Aug. 19, 2013) (to be codified at 42 C.F.R. 412–414, 419, 424, 482, 485, 489) [hereinafter Payment Systems]. Proposed rules would add four additional quality-based measurements: influenza immunization, influenza vaccination coverage among health care personnel, tobacco use screening, and tobacco use treatment. Medicare Program; Inpatient Psychiatric Facilities Prospective Payment System—Update for Fiscal Year Beginning October 1, 2014 (FY 2015); Final Rule, 79 Fed. Reg. 45,938, 45,940, 45,967–72 (Aug. 6, 2014) (to be codified at 42 C.F.R. pt. 412); Medicare Program; Inpatient Psychiatric Facilities Prospective Payment System—Update for Fiscal Year Beginning October 1, 2014 (FY 2015); Proposed Rule, 79 Fed. Reg. 26,040, 26,065–68 (May 6, 2014) (to be codified at 42 C.F.R. pt. 412).

102. See Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2008 Rates; Final Rule, 72 Fed. Reg. 47,130, 47,200 (Aug. 22, 2007) (to be codified at 42 C.F.R. 411, 412, 413, 489); DEP’T OF HEALTH AND HUMAN SERVS.: CTRS. FOR MEDICARE & MEDICAID SERVS., HOSPITAL-ACQUIRED CONDITIONS AND PRESENT ON ADMISSION INDICATOR REPORTING PROVISION 6 (2014), available at <http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/wPOAFactSheet.pdf>.

103. For similar state-level quality measurements, see generally Sule Calikoglu et al., *Hospital Pay-for-Performance Programs in Maryland Produced Strong Results, Including Reduced Hospital-Acquired Conditions*, 31 HEALTH AFF. 2649 (2012).

104. Payment Systems, *supra* note 101, at 50,678–80.

based on quality and not on cost.¹⁰⁵ Quality includes measurements of hospital mortality¹⁰⁶ and mortality within 30 days of admission.¹⁰⁷ These empirical studies are highly relevant to U.S. antitrust analysis as hospital and physician services are sold in price-controlled markets (Medicare and Medicaid), so the usual monopoly markups in competitive hospital markets do not apply. Furthermore, the case that competition is related to better quality may be stronger in price-controlled markets than in markets where providers can set prices.

Reviews of the more recent hospital merger cases have not led to more comprehensive guidance as to a robust analytical approach. The FTC seems to take an alternative approach by not suggesting a hierarchy of better measures of quality of care. Rather, the FTC states: “we advocate relying on the merging parties’ analyses to determine which metrics to consider, and what the merger’s likely impact on those measures will be.”¹⁰⁸ On the one hand, these measures of quality would be the ones that the merging parties use regularly, as per the 2010 Merger Guidelines. If there are real efficiency gains, then such analyses should play a prominent role in merger competitive-effects analysis. However, this approach also allows the parties to set the stage by cherry-picking the best quality measures rather than the ones that might be most accurate. Parties may be able to demonstrate likely quality improvements in area A, and then ignore analyses of areas B and C, and the agencies will have to demonstrate that potential offsetting reductions in B and C outweigh A. Updating the Commentary on the Merger Guidelines to include a more robust discussion of quality efficiencies including the types of quality data (e.g., customer satisfaction survey data, outcome-based measurements) and more closing statements that specifically detail the types of quality measurements used would go a long way to improving business planning and improving consumer welfare.

IV. CONCLUSION

This Essay reflects concern that antitrust agencies and courts have not embraced quality-enhancing efficiencies and offered them equal weight as cost efficiencies in case law and policy. With a better sense of the kind of quality evidence to use and how to apply it, courts should not automatically

105. Hugh Gravelle et al., *Hospital Quality Competition Under Fixed Prices*, 2–15 (Univ. of York Ctr. for Health Econs., Research Paper No. 80, 2012), available at http://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP80_hospital_quality_competition_fixedprices.pdf (providing a literature review).

106. Zack Cooper et al., *Does Hospital Competition Save Lives? Evidence from the English NHS Patient Choice Reforms*, 121 *ECON. J.* F228, F229 (2011); Carol Propper et al., *Competition and Quality: Evidence from the NHS Internal Market 1991–9*, 118 *ECON. J.* 138, 139 (2008).

107. Martin Gaynor et al., *Death by Market Power: Reform, Competition, and Patient Outcomes in the National Health Service*, 5 *AM. ECON. J. ECON. POLY* 134, 136 (2013).

108. See Perry & Cunningham, *supra* note 15, at 44.

defer to the government as to merger effects on quality. Rather, courts should treat quality arguments akin to price arguments in merger cases with regard to merger efficiencies, with the same weight based on an economically sound empirical analysis. Doing so would improve both total and consumer welfare, particularly in markets such as health care where fundamental structural changes are underway.