Quality Enhancing Merger Efficiencies

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ABSTRACT

The appropriate role of merger efficiencies remains unresolved in US 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 through increased competition will create a system in which quality 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 particularly 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 synch with quality analysis. This essay proceeds as follows. First, it provides a discussion of the welfare effects on quality and its implications for antitrust analysis. In the next part, the article explores quality analysis both in the 2010 Horizontal Merger Guidelines and in antitrust case law. In doing so, the essay identifies areas both of clarity and ambiguity regarding quality enhancing efficiencies policy. In the subsequent part, 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, in the next part, 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 healthcare 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 is flexible enough for case by case analysis and that will provide for ease of administrability and outcomes 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 US antitrust law and policy. 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. 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, 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 under-emphasizing such changes in merger analysis may lead to bias in the estimated welfare effects of mergers and to mistaken outcomes.

By created 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 California Dental is the price versus quality question and the desire for quality assurance. The same can be said in Leegin about RPM both in the free rider and non-free-rider contexts. 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 a single factor (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 so easy to determine. A multi-product bundle may mean that price is higher on one product but the entire bundle may be cheaper. Limiting oneself only to price, there are multiple ways to determine the appropriate cost based tests in the context of single firm conduct. In this

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4 California Dental Ass’n v. FTC, 526 U.S. 756 (1999).
6 See e.g., Kevin Murphy et al., Competitive Discounts and Antitrust Policy, in ROGER D. BLAIR & D. DANIEL SOKOL, OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS II (2014 expected); Gregory J. Werden, Identifying Exclusionary Conduct Under Section 2: The “No Economic Sense” Test, 73 ANTITRUST L.J. 413, 418–
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 § 7 of the Clayton Act is to prevent mergers that create monopolies or oligopolies.\(^7\) The 2010 Horizontal Merger Guidelines (2010 Merger Guidelines)\(^8\) 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. What about the opposite case in which costs increase but so do quality efficiencies? On this, the 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 pressing given the importance of legislation that has increased merger activity in the health care sector. The Patient Protection and Affordable Care Act (ACA)\(^11\) has led to a significant shift in health care delivery. The ACA promises that increased integration and a shift from quantity of quality performance through increased competition will create a system in which quality 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.\(^12\)

Quality is particularly important as an issue that has emerged in the rapid consolidation in health care, particularly among hospital mergers. Most hospital merger cases focus on cost based efficiencies, as does most of the academic empirical literature.\(^13\) Yet, government policy

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\(^9\) Id at § 10.

\(^10\) Id.


\(^12\) Edith Ramirez, Chairwoman, Fed. Trade Comm’n, Keynote Address at 11th Annual Loyola Antitrust Colloquium, Antitrust, Accountable Care Organizations, and the Promise of Health Care Reform, at 2 (April 29, 2011), available at http://www.ftc.gov/sites/default/files/documents/public_statements/antitrust-accountable-careorganizations-and-promise-health-care-reform/110429loyolaspeech.pdf (“Antitrust enforcers recognized 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.”).

\(^13\) 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
seems out of sync with quality analysis. Last year, the then head of the FTC hospital merger group 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.\(^\text{14}\)

If one were to claim the same about costs in terms of a focus on ordinary course documents over data, such statement would be seen as retrograde as not part of the economic effects data driven practice that is standard in antitrust merger analysis.\(^\text{15}\) Economic analysis and effects based antitrust, including econometric analysis is the basis for both agency decision-making and court analysis regarding competitive effects.\(^\text{16}\)

More recently, the current head of the 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 entirely rule out that price increases are not so much a reflection of market power but a change in the quality improvements.

\(^{14}\) Jeffrey H. Perry & Richard H. Cunningham, Effective Defenses of Hospital Mergers in Concentrated Markets, 27 Antitrust 43 (Spring 2013). Notably, the same article exclusively addresses its discussion of efficiencies in the cost context.

\(^{15}\) See generally ROGER D. BLAIR & D. DANIEL SOKOL, OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS, Volume II (forthcoming 2014). 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 (2002).

\(^{16}\) For the role of economics in antitrust see e.g., Larry J. White, Economics, Economists, and Antitrust: A Tale of Growing Influence, in JOHN J. SIEGFRIED, LIVING BETTER THROUGH ECONOMICS (2010). For case law analysis see FTC 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 over-reach 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. H & R Block, Inc., 833 F.Supp.2d 36 (D.D.C.2011); United States v. Bazaarvoice, Inc., 2014 WL 203966, 260 (N.D. Cal.).
additional hospital; they need to address the specifics of how those processes and practices will benefit patients through improved care.¹⁷

On the whole, this is a sensible set of policy goals. However, Feinstein does not provide guidance as to which quality measurements matter more than others and how to operationalize this in efficiencies analysis analogous to how she explained prices 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 lower risk antitrust mergers that enhance quality. Equally important, the St. Luke’s merger is on appeal to the 9th Circuit, in which the merging parties argue that the FTC has placed an “impossible” burden on the merging parties to prove quality enhancing efficiencies.¹⁸

This essay proceeds as follows. First, it provides a discussion of the welfare effects on quality and its implications for antitrust analysis. In the next part, the article explores quality analysis both in the 2010 Horizontal Merger Guidelines and in antitrust case law. In doing so, the essay identifies areas both of clarity and ambiguity regarding quality enhancing efficiencies policy. In the subsequent part, the essay draws parallels to an efficiency analysis of quality under rule of reason analysis, in which the essay offers examples resale price maintenance and tying of franchising contracts. Thereafter, in the next part, 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 healthcare 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 is flexible enough for case by case analysis 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 for certain industries and more generally.

II. Welfare Effects of Quality

A. Basic Analysis

¹⁷ Deborah L. Feinstein, Antitrust Enforcement in Health Care: Proscription, not Prescription, Fifth National Accountable Care Organization Summit – Washington, DC, 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. See Antitrust Health Care Chronicle October 14, Interview with Deborah L. Feinstein at 6. Of course, this would be a problem for a hospital that has never been involved in a merger before.

Some mergers may improve the quality of the merged firm’s output. Irrespective of the welfare effects of the improved quality, these benefits will not be recognized by the antitrust agencies or courts unless they are merger specific. If the quality change can be realized without the consolidation, then they will not offset any reduction in competition. 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 happen to price.

In Figure 1, \( D_1 \) represents the demand 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 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 \( cdP_2 \). Those two triangular area are precisely the same size. To be sure, the enhanced market power leads to some allocative inefficiency because consumer surplus would rise to \( ceP_1 \) 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.

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 premerger consumer surplus is again equal to the area \( abP_1 \). The post-merger consumer surplus is equal to area \( cdP_2 \), which is unambiguously 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.

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19 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.
20 2010 Merger Guidelines.
21 Id.
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 unambiguously 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 such temptations should be avoided as such a quantity analysis will not necessarily tell us about what happens to consumer welfare.

[Insert Figure 3]

Consider Figure 4. In this case, the improved quality causes $D_1$ to rotate to $D_3$, which has been drawn to intersect $D_2$ 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.

[Insert 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. Though the first Merger Guidelines appeared in 1968, they began to take hold more rapidly in the 1980s (1982 and 1984 Horizontal Merger Guidelines) and 1990s (1992/97 Horizontal Merger Guidelines) in the courts. More specific to the discussion of merger efficiencies, an efficiencies section was added to the 1992 Horizontal

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

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.” Additionally, the agencies’ 2006 Commentary on the Merger Guidelines, provides a comprehensive summary up to that time of how the agencies apply efficiencies to merger cases. 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 anti-competitive 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. Litigated cases will tend to be cases that are close. As a result, the easy efficiency cases may

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25 One limitation to the 2010 Merger Guidelines (and its predecessors) is that they are not statute and not case law. 2010 Merger Guidelines (“[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. D. Daniel Sokol & James A. Fishkin, Antitrust Merger Efficiencies in the Shadow of the Law, 64 VAND. L. REV. EN Banc. 45 (2011). This is particular true given that the Supreme Court has not provided substantive guidance on mergers since the 1970s. See U.S. v. General Dynamics Co., 415 U.S. 486 (1974).


27 H&R Block, supra note 16 at 89.


32 Robert Pitofsky, Efficiencies/Dynamic Analysis/Integrated Analysis Panel, FTC/DOJMerger Enforcement Workshop 82–83 (Feb. 19, 2004), available at http://www.ftc.gov/bc/mergerenforce/040219ftctrans.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
not be seen in court. Similarly, much of the time there is a correlation between quality and price effects regarding efficiencies versus anti-competitive effect. Sometimes that may not be the case. There has yet to be a decided case in which the quality enhancing efficiencies were in contrast to price based anti-competitive 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 efficiencies claims have been litigated in court since the establishment of the 1992 Merger Guidelines. 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 Beechnut, which would have led to a market with the dominant player Gerber and the combined Heinz/Beechnut. Supermarkets always carried Gerber but almost always carried only one of Heinz or Beechnut. The merging parties claimed efficiencies on both price (due primarily to shuttering an antiquated factory in upstate New York) and quality (based one company’s superior tasting baby food). In that case, 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 Merger Guidelines, as revised in 1997. However, the DC Circuit, after noting this argument ignored the quality efficiencies and focused its analysis exclusively of the price efficiencies it its decision to reverse and find for the FTC.

The Court of Appeals noted that “the high market concentration levels in this case require, in rebuttal, proof of extraordinary efficiencies, which the appellees failed to supply” whereas the district court credited the quality efficiencies in terms of the flavor of the baby food. 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.


34 Mark V. Pauly, The Tradeoff Among Quality, Quantity, and Cost: How to Make it if We Must, 30 HEALTH AFFAIRS, 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.”).


37 Heinz at 720.
food. 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 Horizontal Merger Guidelines have 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 hospitals, the court was convinced by Butterworth’s pledge to “to provide quality healthcare programs for the underserved without regard to ability to pay.” Without much discussion (relative to discussions on cost based efficiencies), it also noted “While 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.” 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.”

In Tenet, a case involving the merger of two hospitals in Poplar Bluff, Missouri, the 8th Circuit took the lower court to task for not sufficiently analyzing the quality claim, noting “[t]he reality of the situation in our changing healthcare environment may be that Poplar Bluff cannot support two high-quality hospitals.” The 8th Circuit also admonished the district court for placing “an inordinate emphasis on price competition.”

Quality improvements alone do not seem to warrant pro-competitive treatment. In 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. The FTC remedies in Evanston suggest that the Commission found some merit to the quality claims. While complaint counsel wanted a full divestiture, the Commission chose a

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38 FTC v. H.J. Heinz, Co., 116 F.Supp.2d 190, 200 (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 court also 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.” Id. at 721.
40 Id. at 1300.
43 Tenet Healthcare Corp., 186 F.3d at 1055, 1054.
remedy short of structural separation because of the quality improvement in cardiac surgery at Highland Park, which would not have had the volume without the merger to sustain this improvement.\footnote{Opinion of the Commission on Remedy (by T. Rosch), In the matter of Evanston Nw. Healthcare Corp., FTC Docket No. 9315 (Apr. 24, 2008) at 9, available at http://www.ftc.gov/os/adpro/d9315/080428commpiniononremedypdf.}

Since the introduction of the 2010 Merger Guidelines, a number of cases have explored (albeit relatively briefly) how quality enhancing efficiencies may play out in the merger context. In \textit{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.\footnote{F.T.C. v. OSF Healthcare System, 852 F. Supp. 2d 1069, 1092-93 (N.D. Ill. 2012).} Similarly, the court rejected quality based efficiency arguments based on “Centers of Excellence” in which the combined hospitals could use to recruit specialists, as too speculative and outcomes that might be realized without a merger.\footnote{Id at 1093-94.} 

In the St. Luke’s acquisition of the Saltzer physician group, the parties made a series of unsuccessful claims regarding quality efficiencies. The parties argued that the primary reason for the merger was to eliminate the fee for service pay system and to move to an integrated delivery system that is a risk based system.\footnote{St. Lukes at ¶¶ 161-206.} On the one hand, the court was sympathetic to the merging parties for understanding the importance of vertical integration to improve quality.\footnote{FTC v. St. Luke’s Memorandum Decision and Order Permanently Enjoining the Acquisition by St. Luke’s Health System of Saltzer Medical Group at 2 (“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.”).} 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 efficiencies\footnote{Id. at ¶ 185 (“[A] committed team can be assembled without employing physicians…”).} and that other ways to achieve integration related efficiencies were possible.\footnote{Id. at ¶ 161-77.} 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.\footnote{Id. at ¶ 204.}

In \textit{Bazaarvoice},\footnote{United States v. Bazaarvoice, Inc., 2014 WL 203966, 260 (N.D. Cal.).} the merging parties claimed quality efficiencies based on more data that would be available for data analytics. 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.\footnote{Id at 262-63.
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.

D. Quality Enhancing Efficiencies Under a Rule of Reason Analysis

Antitrust courts have the institutional capability to undertake quality efficiency enhancing analysis. We provide two examples - resale price maintenance (RPM) and tying in franchising contracts to illustrate how courts have been able to correctly adjudicate on 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 and 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.

1. RPM

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*, a 1911 Supreme Court decision. After nearly 100 years, the Supreme Court overturned *Dr. Miles* in its *Leegin* decision. The weight of scholarly research revealed that RPM was neither invariably anticompetitive nor invariably procompetitive. Consequently, a rule of reason analysis seemed necessary to determine whether a particular instance of RPM was lawful or unlawful. This is what *Leegin* now requires.

It has been argued that RPM can be used to facilitate a horizontal conspiracy among manufacturers or among distributors. These situations are clearly undesirable and should be

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59 RPM supports a cartel by making it more difficult to cheat. Lester G. Telser, *Why Should Manufacturers Want Fair Trade?* 3 J.L. & ECON 86 (1960), explained the cartel motivation for RPM. He also pointed out the weaknesses in those uses of RPM. HERBERT HOVENKAMP, ENTERPRISE AND AMERICAN LAW: 1836 – 1937 (1991),
condemned. 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 RPM program is not evidence of a horizontal price fixing conspiracy among manufacturers or among distributors.

A. Promotional Uses of RPM

Several procompetitive motives have been offered for RPM. 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.

A clear case is illustrated in Figure 5, where $D_1$ 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 $D_2$. Of course, 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.

Chapter 25, examined the background of Dr. Miles and argues that there was a widespread conspiracy among distributors that explained the use of RPM in that case.


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.

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 dealers would fall rather than rise and the manufacturer’s profits would suffer. F.M. SCHERER & DAVID ROSS, INDUSTRIAL MARKET STRUCTURE AND
In this case, consumer surplus is unambiguously enhanced. Without the quality enhancing services, consumer surplus is given 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. 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.

All consumers, however, may not value the services equally. 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 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. 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. The ability of courts to undertake an analysis involving quality for conduct suggests that a similar approach is possible in the merger context.

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 clearly reasonable because both consumer welfare and social welfare increase due to RPM, and therefore, is presumably lawful. In contrast, the RPM plan

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62 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.


64 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 (1994). RICHARD A. POSNER, ANTITRUST LAW 176, (2d ed. 2001), does not believe that this refinement can be handled in a judicial setting and, therefore, should be ignored. Judge Posner may be right as a practical matter, but ignoring this refinement necessarily abandons the consumer welfare standard.

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 reasonableness. RPM is supposed to lead to higher prices, and, therefore, 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, it will be necessary to embark on a difficult econometric journey to resolve the reasonableness inquiry. It would seem that whoever bears the burden of proof will lose the battle.¹⁶

2. 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.¹⁷ 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 Brothers (at least we do) while visitors frequent Chipotle or Taco Bell. Irrespective at the quality level, consumers do not want to be disappointed when they visit McDonald’s or Subway.

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 with 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.¹⁸ One solution to this problem is to tie input purchases to the franchise license.¹⁹

¹⁶ 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 Dissenting Statement of Commissioner Wright, In the Matter of Ardagh Group S.A., Saint-Gobain Containers, Inc., and Compagnie de Saint-Gobain, April 10, 2014, available at http://www.ftc.gov/public-statements/2014/04/dissenting-statement-commissioner-wright-matter-ardagh-group-saint-gobain.
¹⁷ For an extensive examination of franchising, see ROGER D. BLAIR & FRANCINE LAFONTAINE, THE ECONOMICS OF FRANCHISING (2005).
¹⁸ For an analytical development of this problem, see Roger D. Blair & David L. Kaserman, A Note on Incentive Incompatibility Under Franchising, 9 REV. INDUSTRIAL ORG. 323 (1994).
¹⁹ On the law and economics of tying generally, see Erik Hovenkamp & Herbert Hovenkamp, Tying Arrangements, in THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS, VOLUME 2 (Roger D. Blair & D. Daniel Sokol eds. 2014).
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.\footnote{Krehl v. Baskin-Robbins Ice Cream Co., 664 F.2d 1348 (9th Cir.1982).} 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 \textit{real} Domino’s pizza from Domino’s or from a designated third party.\footnote{Queen City Pizza, Inc. v. Domino’s Pizza, Inc. 124 F.3d 430, 440, 443 (3d Cir. 1997).}

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.\footnote{For proof of this proposition, see Roger D. Blair & David L. Kaserman, \textit{Vertical Integration, Tying, and Antitrust Policy}, 68 AM. ECON. REV. (1978).} To the extent that this benefits the franchisor at the franchisee’s expense, there is apt to be conflict that may erupt in an antitrust suit.\footnote{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.}

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 franchiseor’s use of tying arrangements is not an effort to leverage monopoly into the tied good market(s). Since there are some 2,000 franchising opportunities in the United States, 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

A. Measuring Quality Efficiencies

There are not many empirical papers on the relation between market competition including mergers and health care quality. We summarize the existing academic literature on quality in healthcare 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.

Mutter et al. undertake a broad survey of hospital mergers in 1999 and 2000 on 25 measurements of quality and find mixed results regarding consolidation and quality. In contrast Cuellar and Gertler find that the creation of hospital systems has increased market power rather than improve quality of care, in which they examined patient-level annual hospital discharge data. Romano and Balan analyze quality from short term inpatient quality indicators, patient safety indicators and measures of risk-adjusted mortality measures for heart attacks, neonatal mortality, and obstetric trauma in the Evanston/Highland Park merger. They find little evidence that the merger improved quality.

Some scholarship shows an inverse relationship between quality and consolidation. Hamilton and Ho examine quality of care on heart attack and stroke in-patient mortality and readmission rates in California. They find no merger effects on in-patient care but found negative effects post merger regarding readmission rates. Kessler and McClellan explore quality of care

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75 Ryan Mutter et al., The Effect of US Hospital Consolidations on Hospital Quality, 18 INT’L J ECON. BUS. 109 (2011).
78 Id. at 61.
based on acute myocardial infarction (AMI) hospitals admits. They find that competition after 1990 improved quality. AMI and pneumonia are the focus of a paper by Gowrisankaran and Town. In their analysis, HMO patients (but not Medicare patients) had better outcomes with competition. Other papers include Kessler and Geppert, who examine heart attack care and find that increased competition increases welfare. Sari’s analysis shows that competition improved quality regarding wound infections. Yet, Huckman analyzes consolidation’s effects on cardiac procedures and finds little impact in quality.

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. Finally, managerial quality may be impacted by competition.

Based on these articles, the impacts of competition and consolidation on hospital quality in the United States is not always clear. This could be due to the proxy variables (inpatient mortality, re-admission, discharge, etc.) 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. One common approach is to address adjusted mortality, in part because this data is easy to obtain. Using such an approach is not always easy, as there may be high quality in one area but not others.

82 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).
83 Nazmi Sari, Do Competition and Managed Care Improve Quality?, 11 J. HEALTH ECON. 571 (2002).
85 See Wenke Hwang, et al., Effects of integrated delivery system on cost and quality, 19 AM. J. MANAG. CARE 175 (2013) (providing a literature review); Roger Feldman et al., Changes in Quality of Health Care Delivery after Vertical Integration (University of Minnesota working paper 2014).
87 Avedis Donabedian, The Quality of Care: How Can It Be Assessed?, 260 JAMA 1743 (1988); Avedis Donabedian, Evaluating the Quality of Medical Care, 44 MILBANK MEMORIAL FUND Q. 166 (1966).
Nevertheless there is an emerging empirical literature in this area.\textsuperscript{89} 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.\textsuperscript{90} There are also international based qualities of care measurements. The OECD\textsuperscript{91} and the World Health Organization also have measurements based on “best practices.”\textsuperscript{92}

Quality based quantitative measurements are in fact part of day life for many hospitals and these measurements are a function of Centers for Medicare and Medicaid Services (CMS) service quality measures. The first is a Medicare Hospital Value Based Purchasing (VBP) Program\textsuperscript{93} and the second a non-payment policy for conditions that are acquired in hospitals.\textsuperscript{94} These programs have shifted hospital reimbursement schemes to quality outcome based pay for performance.\textsuperscript{95} Under VBP, the government reimburses based on processes of care (thirteen measurements), patient experiences (eight measurements) and outcomes (three mortality measurements) based on a total performance score.

A number of more recent academic studies measure quality competition, such as in the United Kingdom and the Netherlands, where competition is based on quality and not on cost.\textsuperscript{96} This includes measurements of hospital mortality\textsuperscript{97} and mortality within 30 days of admission.\textsuperscript{98} These empirical studies are highly relevant to US antitrust analysis as hospital and physician services are sold in price-controlled markets (Medicare and Medicaid), so the usual monopoly


\textsuperscript{93} 78 FR 50678. Proposed rules would add four additional quality based measurements: 1. Influenza Immunization; 2. Influenza – Vaccination Coverage among Healthcare Personnel; 3. Tobacco Use Screening; and 4. Tobacco Use – Treatment Provided or Offered and Tobacco Use Treatment.

\textsuperscript{94} CMS, Hospital-Acquired Conditions and Present on Admission Indicator Reporting. See CMS, “Medicare Program: Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2008 Rates; Final Rule.” 72 FR 47130–48175, available www.access.gpo.gov/su_docs/fedreg/a070822c.html.

\textsuperscript{95} For similar state level quality measurements see Sule Calikoglu et al., \textit{Hospital Pay for Performance Programs in Maryland Produced Strong Results, Including Reduced Hospital-Acquired Conditions}, 31 HEALTH AFFAIRS 2649 (2012).

\textsuperscript{96} Hugh Gravelle et al., Hospital Quality Competition Under Fixed Prices, CHE Research Paper 80, available at http://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP80_hospital_quality_competition_fixed_prices.pdf (providing a literature review).


\textsuperscript{98} Martin Gaynor et al., \textit{Death By Market Power: Reform, Competition, and Patient Outcomes in the National Health Service}, 5 AMER. ECON. J.: ECON. POLICY 134 (2013).
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 a 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, “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.”99 On the one hand, these measures of quality would be the ones that the merging parties use regularly, as per the Merger Guidelines. If there are real efficiency gains, then such analyses should play a prominent role. 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 price/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 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 total and consumer welfare, particularly in markets such as health care where fundamental structural changes are underway.

99 See Perry, supra note [].