Are Relevant Markets Ever Irrelevant?

HMG Review Project – Comment, Project No. P092900
Comments on Questions 1, 2b, and 10a

Stephan M. Levy, Ph.D.[1]
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Antitrust cases involving mergers are frequently centered on the delineation of the relevant market, that is, the determination of the set of products or services at the heart of the case. From the determination of which products are "in" and which are "out" of the market, courts are able to determine the market shares from which they can infer whether a firm has market power. Being such an important element, the issue of defining the relevant market often becomes the most time consuming and costly part of an antitrust case.

The 1992 Horizontal Merger Guidelines describe what is commonly referred to as the "hypothetical monopolist test" for defining the relevant market. This test asks whether a hypothetical monopolist of a good or set of goods (or of a geographic region) could profitably increase prices above the pre-merger level. In many cases, however, direct evidence is available that demonstrates a merger would create an anticompetitive effect. In those instances, evidence (or lack of evidence) of anticompetitive effects may make the hypothetical monopolist test an unnecessary exercise.

Background

The 1992 Merger Guidelines describe how the Federal Trade Commission and the Department of Justice (the Agencies) infer whether a merger will allow the merging firms to exercise market power (e.g., increase prices) based upon what economists refer to as a structural analysis. The idea is that an industry's structure, coupled with the participating firms' conduct, can be used to infer the competitive performance of the industry. All else being

[1] Senior Managing Economist, LECG. The views and opinions expressed here are those of the author and not necessarily those of LECG, its employees, subsidiaries, and affiliates.

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1725 Eye Street, NW, Suite 800, Washington, DC 20006
main 202.466.4422 fax 202.466.4487
http://www.lecg.com

equal, an industry with few firms and with significant entry barriers is more likely to have supra-competitive prices. Alternatively, all else being equal, an industry with many firms, or in which entry by new firms is easy, is more likely to have prices at the competitive level.

Consequently, the 1992 Merger Guidelines focus on a five step process that the Agencies follow in evaluating a proposed merger. First, the Agencies define the relevant market and measure market concentration. Second, the Agencies examine whether anticompetitive effects might arise from the merger. Next, the Agencies examine the ease with which firms may enter and exit the market and whether entry by new firms would lessen or eliminate any potential anticompetitive effects. Fourth, they determine whether efficiencies may arise from the merger that would lower costs and offset any potential anticompetitive effects. Finally, they determine whether the failing firm defense would apply.

Relevant Markets

The issue of the relevant market is particularly important. Many antitrust cases—both merger and non-merger—are decided by the outcome of how the relevant market is defined.[2] A broad relevant market will generally include many firms and is therefore more likely to be competitive. A narrow relevant market will generally include few firms and is therefore less likely to be competitive.

For example, in September 1996, Staples proposed to merge with Office Depot. Staples argued for a relatively broadly defined market that included all office supply retailers. In such a market, a combined Staples and Office Depot, while being the largest competitor nationwide, would still have had a market share that would have been small enough to consider the market relatively competitive. The FTC, on the other hand, concluded that the relevant market was more narrow—office supply superstores. In that more narrowly defined market, Staples and Office Depot had a very large combined market share (OfficeMax was the only other competitor) and the merger appeared to be anticompetitive.[3]

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[2] ABA Section of Antitrust Law *Market Power Handbook* at p. 53. The term "relevant market" literally refers to the market that is relevant to the case at hand. This is a term of art that refers to the set of products over which the case will be decided and the geographic area in which those products are sold. The term relevant market implies that some boundary exists such that some firms or products are "in" the market while others are "out" of the market. Consequently, some substitute product may exist that lies outside of a relevant market's boundaries because that substitute is not a sufficiently "close" substitute to constrain relatively small price increases for the goods within the relevant market.

[3] Dalkir and Warren-Boulton (2004).

Definition of the relevant market often becomes the dominant issue in an antitrust case. In a broadly defined market, the market shares of even the largest firms are likely to be relatively small. In general, firms with small market shares have little ability to influence the market price—that is, exercise market power. In a narrowly defined market, a few firms will have relatively large market shares. Generally, firms with large market shares are able to exercise market power and thereby influence the market price. Since antitrust law is meant to limit the ability of firms to exercise market power, firms accused of violating the antitrust laws will try very hard to prove that they have small market shares. Consequently, antitrust cases are often won or lost on the issue of the relevant market and it is on this issue that much time and effort are expended.

The 1992 Merger Guidelines prescribe a test as to whether a hypothetical monopolist of a product or set of products (or a geographic area when defining geographic markets) could successfully instigate a small, significant, non-transitory increase in price (SSNIP). The magnitude of the SSNIP for this test is generally set at 5 percent (although other magnitudes such as 10 percent may be used by the Agencies as circumstances warrant). The smallest set of products or the smallest geographic area for which a hypothetical monopolist could increase above pre-merger prices by 5 percent is considered a relevant market. From this determination, the Agencies (and merging parties) are able to identify market participants, calculate market shares, and evaluate whether concentration levels are sufficiently high that reduced competition as a consequence of the merger is a concern. If the merger would create a sufficient increase in concentration, the Agencies then examine anticompetitive effects, entry barriers, efficiencies arising from the merger, and whether one or both merging firms are failing firms.

The Direct Evidence Approach

While much effort is spent on defining the relevant market, the central question of an antitrust case is really whether or not a particular action results in customers paying higher prices due to reduced competition. Often, economists can directly measure the effect of a merger or other apparently anticompetitive action on prices using the data typically collected during discovery. The use of such "natural experiments" is common in antitrust cases, particularly when measuring the size of an anticompetitive effect or the magnitude of damages suffered by customers. Such proof of an anticompetitive effect may obviate the need to conduct a hypothetical monopolist

test as proscribed by the Merger Guidelines.[4] However, using direct evidence of an anticompetitive effect in lieu of a Guidelines market definition analysis is not common practice.

The concept of a relevant market is meant to be a means to an end, not the end itself. The relevant market allows us to calculate market shares and determine whether a market is concentrated or unconcentrated. However, economic theories exist in which even a monopolist is unable to charge prices above a competitive level. Consequently, if evidence exists with which an economist can measure the degree by which prices will exceed the competitive level, an analysis utilizing that evidence may be more persuasive than inferences drawn by examining market shares.

Common Ways to Directly Measure Anticompetitive Effects

To measure whether prices are above the competitive level, economists look for a natural experiment using available data. A "natural experiment" contrasts with a controlled, laboratory experiment. Since economists are usually unable to create a perfect control group, they must look for other markets or geographic areas where competition is acknowledged to exist, and in which other differences may be factored out of the comparison. Then the economist can compare prices for the product at question in the antitrust case to the prices in the "control market," and see if those prices are higher or lower.

Before-and-After Benchmarks

One commonly used natural experiment is the "before-and-after" approach. In this method, there is generally a period of time during which the parties agree that competition existed. Typically, some event occurred (such as a price fixing conspiracy or a merger) that supposedly made the market less competitive. If prices in the competitive period are lower than prices in the alleged less-competitive period, an economist can determine whether the event in question is the likely cause of the difference.

[4] Several well-known economists remark that using direct evidence of anticompetitive effects when such evidence is available may obviate the need for performing a structural analysis. For example, Joseph Farrell, Director of the FTC Bureau of Economics, and Carl Shapiro, Deputy Assistant Attorney General in the Antitrust Division, have written in a joint paper that "direct evidence might be another way for the government to meet at least its initial burden of showing that the proposed merger will harm customers" (Farrell and Shapiro (2008), fn. 52). See for example: Baker (2006) p. 45, Baker and Bresnahan (2006) p. 3, Coate and Simons (2009) p. 5, Carlton (2007) pp. 12, 16, Coleman and Langenfeld (2008), Hausman and Sidak (2007), Kaplow and Shapiro (2007) pp. 98-99, Salop (2000), and Werden (2000) p. 212. See also *Market Power Handbook* (2005) at pp. 18-19.

Of course, care must be taken in conducting the analysis and interpreting the results. Any confounding causes for a price increase must be acknowledged and controlled for.[5] If another event that could raise prices occurs at about the same time, it may be difficult to distinguish between the separate effects on prices of the two events. For example, a natural disaster may be the cause of all or part of a price increase instead of a merger.

Contemporaneous Benchmarks

Another commonly used natural experiment is the contemporaneous benchmark approach. In this method, the economist looks for another market or geographic region that can be agreed upon or demonstrated to be competitive, and then compares the prices between these two markets for the same time period. For example, a merger or price fixing conspiracy between two firms in Phoenix is not likely to effect prices in Miami. Therefore, by comparing prices in Miami to prices in Phoenix, an economist may be able to demonstrate whether market power exists in Phoenix. Of course, there must be good evidence supporting that the benchmark market is indeed competitive. Also, the economist must take into account differences between the two markets (for example, population, income, number of competitors) that could affect the price level.[6]

The FTC's economists used a contemporaneous benchmark model to determine that prices would rise as a result of the proposed Staples-Office Depot merger.[7] In that case, the FTC had electronic data on prices for a market basket of office supplies in a number of different U.S. cities. They compared prices between groups of cities with different levels of office superstore competition. One group of cities had only Staples stores. Another group had both Staples and Office Depot competing with one another. A third group had Staples, Office Depot, and OfficeMax competing. Other groups had different combinations of the three office superstores. The FTC economists used regression analysis to demonstrate that, all else being equal, prices were higher in markets where Staples or Office Depot were the only office supply superstore compared to markets where they competed head-

[5] See Coleman and Langenfeld (2008), pp. 7-10.
[6] See Coleman and Langenfeld (2008), pp. 7-10.
[7] See Dalkir and Warren-Boulton (2004), Baker and Rubinfeld (1999), and Baker and Pitofsky (2006). Hausman and Sidak (2007) demonstrate the application of a contemporaneous benchmark model for mobile phone service in Ireland, using the United Kingdom as a competitive benchmark.

to-head.[8] The regression analysis also demonstrated that the presence of other stores selling office supplies did not change this conclusion. The FTC was also able to produce other evidence that corroborated this story, such as newspaper advertisements from the same day in different cities that showed higher advertised prices where Staples and Office Depot did not directly compete with one another.[9]

Direct Evidence has Been Accepted by Courts

While in the *Staples* case the FTC demonstrated direct evidence of market power through prices, the Commission still took pains to present this evidence within the tried-and-true template of a relevant markets analysis. Consequently, the Commission defined a relatively narrow market consisting of office supply superstores that excluded other office supply retailers.[10] Similarly, in the more recent litigation over the merger between Whole Foods Market and Wild Oats Markets, the FTC defined the relevant market as consisting of "premium natural and organic supermarkets," despite also presenting direct evidence purporting to show that prices would increase post-merger.[11] In trying to block the merger between Oracle and PeopleSoft, the DOJ's Antitrust Division also formally defined a relevant market—high function human resources and financial software—despite also presenting a regression analysis as direct evidence that the merger would lead to higher prices.[12]

The Agencies' decisions to frame these and other cases as traditional market definition cases has helped fuel debate on the relationship between market definition and unilateral effects.[13] In both the *Staples* and *Oracle* cases, the Agencies' decisions to concentrate on the definition of the relevant market as opposed to emphasizing the direct evidence of anticompetitive effects were strategic choices based upon concerns that the courts would be uncomfortable without the analytical framework of the Merger Guidelines.[14] As Werden notes, "courts have

[8] Regression analysis allows economists to control for other possibly confounding factors and attempt to estimate the impact on prices due solely to an allegedly anticompetitive event such as a merger or price fixing conspiracy. Regression analyses, when conducted properly, have been widely accepted by courts as a reliable way to measure impact and damages.
[9] Dalkir and Warren-Boulton (2004), pp. 60-62.
[10] Dalkir and Warren-Boulton (2004), pp. 55-59.
[11] *FTC v. Whole Foods* (2007).
[12] Reback (2009) pp. 325-327.
[13] See "Unilateral Effects Analysis After *Oracle*" in *Antitrust* (2005).
[14] According to Baker and Pitofsky (2006), pp. 19-20, the FTC made a judgment call that the chances of prevailing in court were greater using the traditional approach defining a narrow relevant product market. See also "Unilateral Effects Analysis After *Oracle*" in *Antitrust* (2005), pp. 9-10, and Reback (2009), p. 314.

not endorsed any method other than structural analysis to establish that mergers violate the antitrust laws, even though a practical alternative often is available."[15]

From an economist's perspective, however, it appears that the perceived reticence of courts in general to accept direct evidence of anticompetitive effects in lieu of traditional market definition in merger cases is inconsistent with courts' open-mindedness in monopolization cases. Many court decisions in monopolization cases support the use of direct evidence in lieu of a formal market definition analysis. For example, in *FTC v. Indiana Federation of Dentists* (476 US 447, 461 (1986)), the U.S. Supreme Court found that "the finding of actual, sustained adverse effects on competition…is legally sufficient to support a finding that the challenged restraint was unreasonable even in the absence of elaborate market analysis." Other appellate decisions, including *Broadcom Corp. v Qualcomm Inc.* (501 F.3d 297), *PepsiCo, Inc. v Coca-Cola Co.* (315 F.3d 101), *Conwood Co. v US Tobacco Co.* (290 F.3d 768), and *Tops Markets v. Quality Markets Inc.* (142 F.3d 90) have also recognized that direct evidence of anticompetitive effects makes a traditional analysis of the relevant market unnecessary. For an economist, it is not a far step conceptually from the application of direct evidence approaches in monopolization cases to merger cases. Why should it be so for judges?

The Analysis Does Not End After Finding Direct Evidence

In merger analysis, the direct evidence of an anticompetitive effect of a merger will likely be based upon historical evidence and data. While using historical data may tell us everything we need to know in a monopolization case, mergers are forward looking—we are measuring expected anticompetitive effects as a consequence of a merger that has not yet been consummated. Accordingly, any analysis purporting to show direct evidence of an anticompetitive effect from a proposed merger must also examine entry and efficiencies.[16]

In some instances, the available historical evidence will include instances of entry and exit that may demonstrate how future entry would likely effect prices. Barring other evidence to the contrary, historical

[15] Werden (2002) p.3.

[16] Where relevant, the analysis must also examine the failing firm defense. See Coate and Simons (2009) p. 6, and Carlton (2007) pp. 16-18. These two papers recognize that entry and efficiencies, for example, must be accounted for in any model of the demand function. They go on to claim that "Direct computation of a merger's competitive effects is not likely to be possible." Coate and Simons (2009) p. 6 referring to Carlton (2009). While it may be difficult to obtain complete information on demand and cost structures, Coate and Simons' criticism does not necessarily apply to benchmark-type analyses discussed here. The benchmark analyses are a type of reduced-form model mentioned in Baker and Rubinfeld (1999) pp. 391-392 and which are easier to estimate than the underlying demand and cost structures. Baker and Rubinfeld describe the pros and cons of using reduced-form models and demonstrate the applicability of these models to antitrust cases.

evidence of the effect of entry on prices should give a reasonable expectation of how prices will adjust in response to future entry. When historical evidence of entry and exit is not available, other evidence will need to be presented to determine whether future entry may mitigate any anticompetitive effect that has been demonstrated by the direct evidence approach. In such a circumstance, potential entrants would need to be identified and a determination would need to be made of how close a substitute the entrants' products would be to the merging parties' products.

Similarly, presentation of direct evidence that a merger will have anticompetitive effects must acknowledge any efficiencies that might arise from the proposed merger. Preferably, estimates of the effect of merger-specific efficiencies based on the historical data can be built into the model, but as with analyzing the effects of entry, this may not be possible. Therefore, the economist would still need to evaluate the anticipated efficiencies of the merger to see if then offset any detrimental effect on prices.

Conclusion

There are benefits to relying on direct evidence of an anticompetitive effect in place of a full-blown hypothetical monopolist analysis of market definition. By not presenting a hypothetical monopolist analysis, there may be fewer points of disagreement between plaintiffs and defendants that could potentially distract or confuse a judge or jury, such as whether a particular definition of a relevant market is too narrow. Since disagreements over market definition are secondary compared to the primary purpose of determining whether a merger (or other potentially anticompetitive act) would create an anticompetitive effect, it seems worthwhile to focus on the primary purpose when the evidence allows.

Any revision of the Merger Guidelines should emphasize that using direct evidence of an anticompetitive effect, when available, is a reasonable alternative to the relevant market analysis spelled out in the 1992 Merger Guidelines. Given the existence of support in legal precedent for using direct evidence of an anticompetitive effect in non-merger cases, the inclusion of direct evidence approaches in revised Merger Guidelines may increase courts' comfort level in accepting these approaches in merger cases. Further, revised Merger Guidelines should explicitly describe various methodologies for directly demonstrating anticompetitive effects, such as using before-

and-after and contemporaneous benchmarks, so that firms considering mergers have guidance on how the Agencies will perform such analyses and what data the Agencies will use.

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HHI Thresholds in the Horizontal Merger Guidelines

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Stephan M. Levy, Ph.D.[1]
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The Horizontal Merger Guidelines use the Herfindahl-Hirschman Index ("HHI") to measure the degree of concentration within a relevant market. The current standard is that the agencies will challenge proposed mergers in which:

- the pre-merger HHI is between 1000 and 1800, with a post merger increase of 100 or more, or
- the pre-merger HHI is greater than 1800, with a post-merger increase of 50 or more.[2]

The Federal Trade Commission and Department of Justice (the Agencies) have asked:

1. whether these thresholds reflect current practice at the Agencies, and
2. whether the thresholds should be adjusted.

The FTC has published a report on Horizontal Merger Investigation Data covering HSR filings from 1996-2007.[3] This report presents simple data analysis showing the number of mergers with and without enforcement actions for given combinations of ranges of post-merger HHIs and changes in HHIs attributable to the merger. This report gives an indication as to how well the FTC has adhered to the thresholds in the current Merger Guidelines and what levels of market concentration the FTC has found to be problematic.

Unfortunately, the underlying data from this report is unavailable, even in de-identified form, due to confidentiality concerns. Consequently, no one outside of the FTC is able to perform more detailed analyses that might shed light on the importance of the HHI in determining whether or not a merger is blocked or modified. Members of the FTC economics staff have conducted some related studies and are highly capable of conducting

[1] Senior Managing Economist, LECG. The views and opinions expressed here are those of the author and not necessarily those of LECG, its employees, subsidiaries, and affiliates.
[2] Merger Guidelines at Section 1.5.
[3] Federal Trade Commission, *Horizontal Merger Investigation Data, Fiscal Years 1996-2007*, (2008).

further detailed studies of this data.[4] However, the de-identified data supporting the FTC's report should be made publicly available so that private, interested parties may perform analyses, such as correlations or regressions, which could better measure the importance of the HHI calculation to an enforcement decision relative to other known factors. Such private-party analyses, in addition to any additional studies by the FTC staff, could then be used to help inform the Agencies on whether the current Guidelines' HHI thresholds are adequate or should be adjusted. The goal of additional analyses of this data would be to empirically establish whether current practice at the Agencies follows the existing Guidelines. If the analysis were to find that current practice is inconsistent with the Merger Guidelines HHI thresholds, then informed suggestions could be made using the new analyses as to what appropriate HHI thresholds might be.

[4] See for example, Coate, Malcolm B., "An Overview of Transparency at the Federal Trade Commission: Generalities and Innovations in Merger Analysis – Updated Some More," (2009). Coate, Malcolm B., and Jeffrey H. Fischer, "A Practical Guide to the Hypothetical Monopolist Test for Market Definition," (2007). Coate, Malcolm B., "Economic Models and the Merger Guidelines: A Case Study," *Review of Law and Economics*, 2:1 (2006): 53-84.