

Comments on Potential Revisions to the Horizontal Merger Guidelines

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Abstract

We focus on several specific issues, with particular emphasis on the role of suggestive evidence of direct competition in merger analysis. We believe it appropriate for the Guidelines to acknowledge that in some cases the Agencies may begin their analysis with such evidence, particularly where the contours of the relevant markets may not initially be obvious. We caution, however, that the analysis needs to go beyond suggestive evidence of direct competition and supplement preliminary inferences with a structural inquiry to determine whether the merging firms possess unique assets not readily available to others.

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Qualifications

Dr. Marius Schwartz is a Professor of Economics at Georgetown University and a senior academic affiliate at the economic consulting firm of Bates White, LLC. He holds a BSc degree from the London School of Economics with first class honors, and a PhD, also in economics, from The University of California, Los Angeles. He has taught and published extensively in industrial organization, a branch of applied microeconomics that encompasses the study of competition and regulation. From April 1995 to June 1996, Dr. Schwartz was the Senior Economist for industrial organization matters at the President's Council of Economic Advisers. From September 1998 to April 2000, he served at the Antitrust Division of the U.S. Department of Justice (DOJ) as the Economics Director of Enforcement, and for six months also as the Acting Deputy Assistant Attorney General for Economics (chief economist). In those positions, Dr. Schwartz oversaw the DOJ's economic analysis in major antitrust investigations, including investigations of horizontal mergers. He has served as an expert for the DOJ in several merger cases, including testifying in federal court, and has analyzed the competitive effects of mergers on behalf of private parties.

Dr. George Rozanski, a partner at Bates White, LLC, has an SB degree from the Massachusetts Institute of Technology and MA and PhD degrees from Harvard University. In his current position, he provides economic consulting services on the competitive effects of mergers and acquisitions and the antitrust analysis of alleged anticompetitive conduct. Prior to joining Bates White, Dr. Rozanski worked for almost 20 years at the Antitrust Division of the U.S. Department of Justice. His position when he left was Chief of the Economic Regulatory Section. In that role, he had responsibility for supervising the economic analysis of proposed mergers and acquisitions, single-firm conduct, and proposed changes in economic regulations and legislation that could affect competition and market outcomes. Dr. Rozanski has substantial experience applying the Horizontal Merger Guidelines and analyzing the competitive effects of mergers. He prepared as the government's testifying expert on several merger matters, and was the DOJ's expert witness in *United States v. Procter & Gamble Co., et al.* (90-5144,8/7/90) and *United States v. Gillette Co.*, 828 F. Supp. 78 (D.D.C. 1993), two early examples of unilateral effects analysis.

Overview

Our comments address from an economic standpoint some of the questions posed by the federal antitrust Agencies in connection with possible revisions to the Horizontal Merger Guidelines ("Guidelines").¹

¹ Horizontal Merger Guidelines: Questions for Public Comment," Federal Trade Commission and U.S. Department of Justice, September 22, 2009. (The document posed twenty questions. Hereinafter, "Question X" refers to question number X in that document.)

Overall, the Guidelines have provided a very valuable framework for analyzing mergers, and have offered useful guidance on how the Agencies approach this task. However, relatively modest revisions could (a) provide better guidance by bringing the Guidelines' language closer to actual Agency practice and (b) improve enforcement by reducing errors in allowing anti-competitive mergers (false negatives) and condemning beneficial ones (false positives). The Questions thoughtfully identify various areas where the Guidelines might be modified to advance these goals. Our comments are not intended to be exhaustive, but will address several issues.

In Section 1 we discuss the Guidelines' overall analytical framework. We suggest some revisions that could be made to the described sequence of the inquiry and the smallest market principle so as to reflect sound economic reasoning and appropriate Agency approach to merger investigations and enforcement.

In Section 2 we address price discrimination markets. While the concept is economically sound, the Agencies should be cautious in relying on price discrimination markets for enforcement because of the serious risk of false positives. Specifically, they should be wary of bringing challenges when the set of vulnerable consumers, or the volume of commerce, in the hypothesized price-discrimination market is relatively small. And any challenge should be based on convincing evidence that price discrimination against the candidate group is economically likely, instead of adopting price discrimination as a default presumption.

In Section 3 we discuss whether structural presumptions should be deemphasized in favor of reliance on direct indicators of competition among the merging firms. Echoing our conclusions from Section 1, such a focus can be an appropriate starting point in certain cases, especially when the competing overlap products exhibit significant differentiation. However, one should go beyond prima facie indicators of especially close competition between the merging firms and dig more deeply to confirm that the suggestive indicators reflect fundamental and durable marketplace characteristics rather than spurious or transitory patterns. This will require identifying the key underlying assets possessed by these firms and confirming that other firms lack such assets and could not easily acquire them; in turn, this will require examining other firms in the "industry." A broader structural inquiry that goes beyond the merging firms should be undertaken as a necessary complement to, and check on, the initial suggestive evidence. Failing to adopt such a check could run the serious risk of excessive enforcement and preventing efficient mergers.

We offer some brief remarks on efficiencies in Section 4, followed by concluding remarks.

1 Order of Analysis, Relevant Evidence, and Hypothetical Monopolist Test

1.1 Order of Analysis and Relevant Evidence²

A horizontal merger consolidates ownership of assets used by the firms to compete in providing their overlap product(s) or service(s). A necessary condition for the merger to pose a substantial risk to competition is that the requisite assets — broadly defined to include both physical and intangible assets — be in sufficiently scarce supply to other firms, at least over some relevant time frame. (This condition is necessary but not sufficient to establish harm to consumers or overall welfare because the merger could also generate efficiencies.) Thus, a fundamental question is whether the merging firms possess some relatively unique assets. The operational challenge is how to answer this question from limited data.

One approach is to proceed from the “bottom up”: identify the key product and geographic attributes of the competing products sold by the merging firms and ask which other firms have or could readily obtain the requisite assets (including geographic locations) to deliver those attributes. This is a structural analysis, formalized in the Guidelines’ market definition and concentration analyses. There will be situations, however, in which the product and geographic market dimensions can be hard to pin down *a priori* with much precision, so it will not be apparent which assets are “unique” and whether the parties possess such unique assets. Yet there can be direct *suggestive* evidence that the firms are close competitors (e.g., bid data). In such cases, it may make sense for the Agencies to proceed “top down”: start with the suggestive direct evidence and use it to guide the inquiry into whether there are structural factors — underlying fundamental assets — that indeed render the merging firms especially close competitors.

Put another way, there may be strong indications that the merging firms are close competitors, but less clarity as to *why*. In such cases, starting with market definition and the analysis of concentration within the market may erroneously yield an overly broad market and low concentration, and prematurely end the inquiry into what is, potentially, an anti-competitive merger. A “top-down” approach helps provide clues as to the “why” and, in doing so, provides insights into the dimensions of the relevant product and geographic market that would otherwise be defined in a “bottom-up” analysis. The Guidelines should focus on providing transparency as to the actual factors and evidence that the Agencies would find persuasive in determining whether a merger is likely substantially to reduce competition, and not on the specific order in which the inquiry is conducted.

² This subsection addresses primarily Questions 1 and 2. Question 1 asks whether the Guidelines should be revised to indicate that the Agency’s assessment may not entail the five steps in analytical process in §0.2 of the current Guidelines (a) in the order listed or (b) not all 5 steps needed in all cases. Question 2 addresses how the Agencies use evidence about likely competitive effects not based on inferences from increases in market concentration and what types of direct evidence are pertinent.

An example illustrating these points is a proposed merger of two concert amphitheatres challenged by the Department of Justice.³ Consistent win-loss documents from both parties, corroborated by testimony from industry participants, indicated that these parties bid mainly against each other rather than other venues to attract performers. However, it was not initially obvious which specific attributes of these two venues might be responsible for making them especially close competitors. Concert venues are differentiated in various dimensions, including: location, proximity to freeways, availability of parking, noise restrictions, size, outdoor vs. indoor, and general ambiance. The merging venues were “close” in all these dimensions; but identifying the relative importance of these various characteristics — and, hence, delineating the precise product and geographic market contours — was more difficult. Thus, starting with market definition would have distracted the competitive analysis from the more probative issues. Instead, the suggestive evidence of direct competition prompted additional inquiry, revealing that the venues’ proximity, size, and open-air nature were especially important in differentiating them from other facilities.⁴

In our experience, it is fruitful to iterate between direct indications of competition between the merging firms and structural factors that might explain such patterns, instead of rigidly following a particular sequence of inquiry. The language of the Guidelines should be revised to clarify that, indeed, the Agencies follow such a flexible approach.⁵

Question 2 asks about the use of direct evidence of likely competitive effects, including evidence drawn from “natural experiments.” In our experience such evidence can inform merger analysis. A study of how industry outcomes are related to variation in industry structure — especially variation in the time series dimension — can yield insights about the extent to which products of the merging firms are relatively close substitutes, the boundaries of the relevant market, and the disciplining effects of longer-run responses by competitors and customers. However, in order for evidence from past mergers to be informative about the likely effect of a prospective merger, the prior merger must be comparable in significant respects. In addition, in analyzing evidence from the past merger it is necessary to control for likely effects on price of changes in other factors. A common approach is to identify a control market or group of products that will register the effects of changes in these other factors but was itself unaffected by the merger.⁶

³ Declaration of Marius Schwartz, *United States v. Pac. Amphitheatre P’ship*, No. 90-3797 (C.D. Cal. July 19, 1990).

⁴ In general, the available information may not be enough to determine *why* various firms are close competitors, that is, to disentangle the relative roles played by geographic dimensions, or the various product attributes, yet it still can provide some confidence about the ranking of competitors.

⁵ The Commentary on the Merger Guidelines, pages 2, 10-11, already appears to confirm this. U.S. Department of Justice and Federal Trade Commission, Commentary on The Horizontal Merger Guidelines (2006), <http://www.usdoj.gov/atr/public/guidelines/215247.pdf>.

⁶ Christopher T. Taylor and Daniel S. Hosken, “The Economic Effects of the Marathon-Ashland Joint Venture: The Importance of Industry Supply Shocks and Vertical Market Structure,” *The Journal of*

An analysis of the price effects of past entry and exit events can also be informative about the extent to which merging firms impose a unique constraint on each other. For example, the observation that past entry by one party to a merger did not affect pricing by the other indicates that entry did not introduce a significant new competitive constraint on the incumbent — either because other firms already constrained price to a competitive level or because the products of the merging firms are only distant substitutes. Such evidence would suggest that the merger is unlikely to harm consumers.⁷

1.2 Applying the Hypothetical Monopolist Test⁸

The Hypothetical Monopolist Test (HMT) for defining an antitrust market asks whether *all* the competing sellers of the products in the candidate market — if hypothetically acting as a single entity in pricing all those products — could profitably impose a small but significant and nontransitory increase in price (SSNIP) from the pre-merger level. If not, then the candidate market has omitted close substitute products.

Various types of information can bear on this question, including structural factors (such as the product characteristics and uses) and firms' conduct. The latter can include signs that firms in the candidate market monitor one another's prices but not prices of substitutes outside the candidate market. A history of attempted collusion among all *or some* of the firms in the candidate market also is relevant: those firms perceived collusion to be profitable and, hence, believed that sellers and products outside the collusive group would not exert sufficient discipline to render a price increase unprofitable.⁹ Thus, a history of attempted collusion reveals that, at least in the eyes of the attempted colluders, the HMT is met for the universe that includes their products.

Industrial Economics 55, no. 3, (2007): 419–51. Deborah Haas-Wilson and Christopher Garmon, “Two Hospital Mergers on Chicago's North Shore: A Retrospective Study” (Working Paper No. 294, U.S. Federal Trade Commission, Bureau of Economics, Jan. 13, 2009), <http://ssrn.com/abstract=1327460>. Craig Peters, “Evaluating the Performance of Merger Simulation: Evidence from the U.S. Airline Industry,” *Journal of Law and Economics* 49, no. 2, (2006): 627-49.

⁷ Paul A. Johnson, “Entry and Exit Event Analysis,” in *Issues In Competition Law And Policy*, Vol. 3, ed. Wayne Dale Collins, 1385 (American Bar Association Section of Antitrust Law, 2008).

⁸ This subsection addresses primarily Questions 3 and 4. Question 3 asks whether the revisions should explain how the hypothetical monopolist test for market definition is applied, including how to conduct “critical loss” analysis. Question 4 asks whether the revision should drop the requirement that products be added in the order of “next best substitutes” and the use of the “smallest market” principle.

⁹ In its challenge to a merger involving producers of labelstock, the DOJ alleged that one of the merging firms had attempted to collude with the market leader, a point that would be relevant not only for competitive effects but also to market definition as noted in the text. See Verified Complaint, *United States v. UPM-Kymmene Oyj*, No. 03C-2528 (N.D. Ill. Apr. 15, 2003), <http://www.justice.gov/atr/cases/f200900/200942.htm>.

We offer observations below on two aspects of applying the HMT: critical loss analysis, and the smallest market principle.

1.2.1 Critical Loss

Critical loss methodology attempts to implement the HMT by asking: in response to a SSNIP, what percentage loss of sales would leave profit unchanged? If the actual loss exceeds this threshold, then the SSNIP is unprofitable and the candidate universe is not an antitrust market.¹⁰ Information about the likely actual loss of sales must come from other sources, so at best, critical loss provides an approach, not the answer. But even as an approach, two caveats should be noted regarding the role of price-cost margins in critical loss analysis.

First, merging parties sometimes argue that high margins make it implausible that the candidate universe would pass the HMT, reasoning that high margins make the critical loss smaller — since any given reduction in sales reduces profit by more the higher is the margin — and, hence, that the actual loss of sales is likely to exceed the critical level. As several economists have observed, this argument ignores a potentially important reason for why margins are high in the first place: relatively low elasticity of demand for the products.¹¹ Thus, one should not examine the effect of high margins on reducing the critical loss without recognizing that underlying conditions may well cause the *actual* sales loss following a SSNIP also to be low.

Second, because price-cost margins are so often used to compute the critical loss, it is sometimes argued that cost data are a necessary prerequisite for performing the HMT. Cost and margin data are unnecessary, however, if there is reliable evidence that the demand elasticity in the hypothesized market is less than one — so in percentage terms, the reduction in sales would be less than the SSNIP— because a price increase would then increase revenue and, hence, be profitable regardless of cost conditions (the reduction in sales would reduce total cost and thereby reinforce the increase in profit). Of course, convincing evidence on the likely demand elasticity will be needed, but that is true also under the critical loss method. If such convincing evidence indicates the demand elasticity is less than one, this will obviate the need to gather cost data and calculate margins.

1.2.2 Smallest Market Principle

A key motivation for the inclusion in the Guidelines of the smallest market principle is not to miss a possible competitive problem by overstating concentration and diluting the shares of the merging firms. While the smallest market principle can thus serve a useful purpose, it need not

¹⁰ The critical loss of sales, CL%, yields a critical elasticity level, CL%/SSNIP%. The question can then be framed, instead, as whether the actual elasticity of demand exceeds the critical elasticity.

¹¹ Michael L. Katz and Carl Shapiro, “Critical Loss: Let’s Tell the Whole Story,” *Antitrust Magazine*, Spring 2003, 49–56. Daniel P. O’Brien and Abraham L. Wickelgreen, “A Critical Analysis of Critical Loss Analysis,” *Antitrust Law Journal* 71, no. 1, (2003): 161–84. Joseph Farrell and Carl Shapiro, “Improving Critical Loss,” *Antitrust Source*, February 2008, 1–17.

be applied rigidly in the face of sound economic analysis that otherwise supports a finding of likely anticompetitive effects.

Specifically, *if* the competitive conditions and analysis of the merger would be largely similar in a set of markets served by the merging firms — including having the same competitors with the same relative strengths — and a competitive problem can be shown in this universe, then there is often no need to delve into whether this is, in fact, the smallest market. The information necessary to identify the smallest market may be lacking, and insisting on such an exercise can be a needless distraction from identifying a competitive problem.¹² Therefore, we support a more flexible approach to defining the relevant market, which would not insist on rigid adherence to the smallest market principle and the requirement of expanding the candidate market by always adding the next best substitute.

2 Price Discrimination Markets

Question 11 asks whether the revisions should expand the discussion of price discrimination, raising the question of whether the Agencies are considering challenging more mergers on this basis. The logic for considering price discrimination markets is similar to the main motivation for using the smallest market principle: adopting a more focused inquiry can reveal competitive issues that would otherwise be overlooked. While the concept of price-discrimination markets is thus economically sound in principle, it is important to be cautious when applying this concept for at least two reasons.

2.1 Price Discrimination Markets Could Be Quite Narrow

Price discrimination markets could be quite narrow, and include very few customers. Enforcement policy should be cautious about deciding to challenge a merger based on concerns in a very small market. The market may be linked on the supply side to related markets that supply the same product or service to different customer segments. Efficiencies in these related markets might therefore be inextricably linked to efficiencies in the market at risk of anticompetitive effects, and the decision to challenge a merger should take these efficiencies into account.

This is distinct from the situation in which a merger might raise price in a very small, non-price-discrimination market, which might more plausibly be separate from other markets, with no common technology and linked efficiencies. Thus, a decision to challenge a merger in a small price discrimination market should be based on a weighing of the costs and benefits to customers

¹² One of us served as an expert in a merger case in which the parties' economist made this very argument: that the government's analysis should be discarded because it did not adhere to the narrowest market principle.

in all the affected markets, including in those markets not at risk of a price increase but in which efficiencies are likely to result.¹³

2.2 Impediments to Price Discrimination

The question of whether a firm would engage in price discrimination in order to exercise market power against a segment of customers could be informed in part by evidence on whether the firm or other industry participants currently practice price discrimination. In reality there may be significant impediments to a firm's ability to engage in price discrimination, and the reviewing Agency should consider them seriously.

In the case of many products, price discrimination may not be feasible because it would be undermined by resale. Arbitrageurs would purchase the product at a low price and profitably resell it to customers that were targeted by the original seller to pay higher prices. The prospect of such arbitrage can severely constrain price discrimination or deter it in the first place.

Even where arbitrage is not an issue, price discrimination may not be attempted. Possible impediments include the following:

- Advertising messages often include information about price or price positioning. A significant fraction of advertising is through media that serve relatively broad markets, either in terms of geography or demographic characteristics of the audience. Examples include network television or network radio advertising, and online remnant display ads. A firm that sought to target a narrow group of prospective customers for differential pricing would face the choice of forgoing price advertising, or restricting itself to targeted forms of advertising that might not be the preferred and most cost-effective choice.
- Firms often perceive a marketing advantage to establishing a single, consistent brand image and product positioning. Proliferating different messages about a critical product attribute such as price would tend to undermine this strategy. In addition, attempting to charge different customers different prices for the same product sometimes can risk confusing and alienating customers.¹⁴
- Discriminatory pricing schemes can impose various costs on firms, associated with identifying different customer segments, determining and maintaining different pricing schedules, training salespeople and customer service representatives to deliver correct

¹³ The Agencies in general should not consider a prohibition on price discrimination as a merger remedy, since there are significant costs associated with any kind of price regulation and since price discrimination can expand output and lead to efficiencies.

¹⁴ Eric T. Anderson and Duncan I. Simester, "Price Discrimination as an Adverse Signal: Why an Offer to Spread Payments May Hurt Demand," *Marketing Science* 20, no. 3 (2001): 315–27. Mikhael Shor and Richard L. Oliver, "Price Discrimination through Online Couponing: Impact on Likelihood of Purchase and Profitability," *Journal of Economic Psychology* 27 (2006): 423–40.

messages and respond appropriately to customers from different segments, or modifying billing systems.¹⁵

In sum, the question of whether price discrimination would be economically feasible post merger must be addressed based on the specific facts in each case.

3 Alternatives to Presumptions Based on Market Shares

The request for public comments asks prominently if the Guidelines should be updated to reflect experience and learning related to unilateral effects analysis.¹⁶ In addition, Professors Joseph Farrell and Carl Shapiro, currently chief economists at the FTC and at the DOJ's Antitrust Division, respectively, recently proposed that the Agencies in their initial screening stage might consider in some cases replacing the traditional structural presumptions with direct evidence on the extent to which the merging firms are close competitors.¹⁷ Specifically, in mergers involving differentiated products, they suggest forming a rebuttable presumption that the merger is anti-competitive not based on market shares, which would require defining a relevant market, but on estimates of firms' price-cost margins and the diversion ratios between their competing products. We offer below some observations on these points.

As discussed in Section 1.1, it is appropriate in some cases to begin by examining direct evidence suggestive of substantial competition between the merging firms, and then proceed to

¹⁵ Increasing centralization of operations and decision making has been identified as one reason why bank holding companies that emerged as the result of deregulation of the banking industry in the 1980s and 1990s moved to adopt uniform pricing strategies for retail banking products. See Lawrence J. Radecki, "The Expanding Geographic Reach of Retail Banking Markets," *Federal Reserve Bank of New York Economic Policy Review* (1998): 15–34. In connection with the proposed merger of DirecTV and Echostar, executives for both companies indicated it would be impractical to price discriminate across regions or smaller geographic areas in the sale of direct broadcast satellite programming services, for some of the same reasons listed here. (See Declaration of Dr. Robert D. Willig on Behalf of Echostar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation, Nov. 30, 2001 at ¶ 29, www.fcc.gov/transaction/echostar-directv/decl_willig.pdf.) The Department of Justice, in challenging the proposed merger, concluded that some customers could be targeted, by ending marketing initiatives and promotional pricing. (See Complaint at ¶ 54, *United States v. Echostar Commc'ns Corp.*, Oct. 31, 2002, <http://www.justice.gov/atr/cases/f200400/200409.pdf>.)

¹⁶ Question 10, dealing with unilateral effects, lists various sub-parts including: (a) the relationship between market definition and unilateral effects; (b) localized effects within a relevant market; (c) the role of diversion ratios and price/cost margins; (d) the use of market shares as proxies for diversion ratios; and (e) the role of product repositioning. Question 7 addresses how market shares should be measured and interpreted, and Question 8 flags this specifically in dynamic markets (ones exhibiting rapid technological change). Our discussion in this Section 3 touches collectively on these various issues.

¹⁷ Joseph Farrell and Carl Shapiro, "Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition" (working paper, University of California-Berkeley, 2008), <http://faculty.haas.berkeley.edu/shapiro/alternative.pdf>.

investigate whether the merging parties possess some unique assets, rather than first seeking to define relevant markets. Such an approach can be especially helpful in settings where there is significant product differentiation and firms are not equally close competitors in some relevant sense. Thus, we are sympathetic in principle to this suggestion. Before embodying this approach into formal Guidelines, however, the Agencies should consider that there are several significant risks of over-enforcement if the approach is improperly applied.

3.1 Avoiding False Positives and Over-enforcement

Very low market shares serve, at least *de facto*, as a screen to identify mergers that likely will not be challenged, and that often can be reviewed without the need for a second request. Thus, discarding market shares completely as a screen would inefficiently burden benign mergers by increasing the costs of compliance and delay. In our view, therefore, there is value to retaining a screening role for low market shares — assuming that the market has been reasonably well delineated — as a way for the Agencies and the merging parties to avoid expending significant resources on transactions with very low likelihood of significant anti-competitive effects. Any Guidelines revision that proposes to do away with or substantially de-emphasize market shares as a screen would have to establish some threshold of substantial harm to competition in order to achieve the same efficient use of resources by the Agencies and merging parties.

If the concern with a merger involves possible unilateral effects, price predictions from noncooperative oligopoly models might be invoked as an alternative to structural presumptions. Noncooperative oligopoly models, however, will necessarily predict *some* price increase if the substitute products of the merging firms are even slightly differentiated from those of other firms (*i.e.*, as long as those other products are anything other than perfect substitutes to those of the merging firms). But obviously not every merger in such an industry should be seen as posing a substantial risk to competition. As Farrell and Shapiro themselves cautioned:

But it would be a radical (and highly questionable) policy to forbid all mergers [whose price is predicted to rise at all based on such a theory] ... and it would presumably be wasteful overkill to flag all such mergers as presumptively problematic. Rather, one would look for [the predicted upward price pressure] to be in some sense “substantial.”¹⁸

Therefore, one needs some limiting principle in applying this alternative methodology and some way for the Agencies to screen out cases in which a merger is unlikely to increase price. One possibility would be to explicitly take account of efficiencies that reduce marginal cost and offset any tendency for the merger to increase price. Information from the merging firms could make it possible to estimate expected cost savings, but such information may not be available early enough for purposes of screening. Alternatives would be to *assume* some level of marginal cost reduction, as Farrell and Shapiro themselves suggest, or to specify a threshold price increase

¹⁸ *Id.*, 9–10.

that must be predicted by the model before further investigation is undertaken by the Agencies. Further experience with such candidate screens is advisable before determining whether to embody them into the Guidelines.

Besides risking over-enforcement, a move to de-emphasize structural factors may conflict with one of the Agencies' other stated goals, namely, enhancing transparency in the merger review process. This conflict may arise insofar as structural factors often are more observable to outside parties than is detailed firm-specific information.¹⁹ This concern that transparency would be reduced deserves further consideration by the Agencies.

3.2 Issues in Relying on “Direct Evidence” to Predict Merger Effects

We observed in Section 1.1 that suggestive direct evidence of close competition between the merging firms under certain circumstances is an appropriate starting point for merger analysis. However, it should not be the ending point. One must probe further to ascertain that the suggestive indicators reflect fundamental factors that distinguish the merging firms from competitors; initial impressions of close competition between the merging firms should be validated with a deeper understanding of the driving factors.

A merger inquiry seeks to evaluate the risk of significant and durable price increases. Approaching this question by relying solely or primarily on the type of direct evidence likely to be available in practice will often be problematic. We will discuss two sets of issues. First, there can be significant difficulty in assessing the degree to which the merging firms' products have been especially close substitutes. Second, there are additional problems in using past information to predict whether a merger would generate durable price increases. This may require an iterative process of examining additional facts and refining hypotheses as the investigation unfolds.

3.2.1 Assessing the Degree of Closeness Among Competitors

The *diversion ratio* is a prominent example of direct evidence of competition between products involved in a merger. Suppose that one of the merging firms sells product A and the other sells product B. If the price of product A were increased, less of A would be sold. The diversion ratio from product A to product B is equal to the fraction of the lost sales of A that

¹⁹ The current Guidelines approach has the advantage that firms and their antitrust counsel will often have an informed basis—based on previous transactions in the same or related industries—for predicting how the Agencies are likely to define markets, and firms will often have information needed to estimate their own share and competitors' shares in the industry. Based on this, firms will have a good head start anticipating the analysis of the Agencies, and firms can, themselves, determine with reasonable certainty the prospects that a proposed transaction can obtain antitrust clearance. In contrast, there may be a range of approaches to estimating diversion ratios, the necessary information may not be generally available, and there may be considerable uncertainty about which approach the Agency is likely to use or has actually relied upon. This may lead to parties not proceeding with potentially efficiency-enhancing mergers because of misperceived risks of challenge, or proceeding with transactions that, with better information in advance, they would not have undertaken. Both outcomes reduce economic welfare.

would be captured by product B. All else equal, the greater is the diversion ratio, the greater is the incentive to increase the price of product A post-merger.

The ideal “experiment” in the data to estimate the diversion ratio would be one in which relative prices of the products involved in the merger change by a significant amount, while the prices of other substitute products — as well as non-price characteristics of all competing products — remain unchanged. The requisite data needed to estimate diversion ratios with confidence are often lacking.²⁰ We address below two broad issues. First, the data available may not accurately represent the underlying facts. Second, the experiment that has generated the observed data may not be the right one to predict price effects of a merger.

Data Issues

In some cases, firms collect information on who they believe their competitors were for individual sales opportunities. Win-loss data, for example, seeks to identify close rivals in the case of sales opportunities won by the firm, or the rival who won the business when the firm lost. Data that may purport to identify which firms were ranked by customers as their first and second choices is of particular interest, because it suggests a diversion ratio: if the winning bidder were to increase price to the extent that it lost the bid, which firm would capture the sale? The Agencies almost always request such win-loss data, and it is tempting to rely on it as suggestive evidence that firms are particularly close competitors, but it is important to be careful when interpreting such data.²¹

The quality of win-loss data, and the inferences that can reliably be drawn, will vary greatly. For example, in some formal procurement situations the identity of bidders is revealed after the fact and detailed information on the bids and the customer’s evaluation of the bids may also be divulged.

²⁰ The diversion ratio is closely related to the ratio of a cross-price elasticity to the own-price elasticity. An attempt to estimate diversion ratios based on econometric estimation of a structural demand model may face some well-known challenges of demand estimation. In particular, past variation in prices may result mainly from short term price promotions, and data may not reveal how consumers would respond to longer-term price movements such as those that might result from a merger. And, of course, the analysis is static, based on the existing set of products, and it does not take into account possible longer run responses of competitors that could include repositioning. For a discussion of issues in demand estimation generally, see *Econometrics*, ABA Section of Antitrust Law, 2005 — especially the appendices; Also see Igal Hendel and Aviv Nevo, “Measuring the Implications of Sales and Consumer Inventory Behavior,” *Econometrica* 74, no. 6 (2006): 1637–1673.

²¹ Data on which competitor a firm lost business to does not necessarily identify the firm and the winner as first and second choices, because there may have been another losing firm that was preferred by the customer. Similarly, information that a rival competed for an opportunity won by the firm does not necessarily identify the two firms as first and second choices, if there were also other competitors.

In other cases, however, the information will be far less reliable. The win-loss data may be reported with significant error. Firms may have limited accurate information about who their competitors were and how customers ranked them. Sales personnel who collect and record win-loss data may have to make guesses and, in the absence of good information, they may tend to assume that leading firms in the industry are almost always strong competitors – after all, losing business to a perceived fringe firm looks worse for the sales person than losing to a leading competitor, and winning business from the leading firm looks better than winning against a fringe competitor. So there may well be a bias in win-loss data that leads to overstating the extent of competition between merging parties who are leading firms.²²

Identifying the Cause of the Apparent Diversion

Firms will sometimes follow up with customers that switch brands or drop a service to ask what they purchased instead. When using such data it is important to know why customers switched. Customers' choices over some products may be determined by a range of product features and supplier attributes in addition to price. Thus, even when win-loss data accurately reflects the identity of the leading competitor, the observation that merging firms compete for many of the same opportunities may not be directly informative about the extent to which price competition between the merging firms is important and diversion ratios between them are high, because choices may be driven by differences across products in non-price dimensions. In addition, other firms may have changed product prices or features, and historical win-loss data may not reflect current patterns of substitution.

For purposes of identifying diversion between products of the merging firms, it would be most useful to identify periods when relative prices changed and to focus on any switching that occurred in response.

As an alternative to win-loss data or data on customer switching in response to changes in determinants of demand, survey information on customers' first and second choices is sometimes available. This information may have been developed as part of marketing research, or it may be collected as part of a merger analysis. Such information by itself is not sufficient to estimate diversion ratios. It is also necessary to know which customers are the marginal customers. The relevant question is, of those customers that would in fact substitute in the event of a small increase in the price of A, would they stay in the market and, if so, would they divert to B?

3.2.2 Durability of Predicted Merger Effects

Putting aside the above issues, even good data about diversion ratios may not be enough to answer the ultimate question of whether a particular merger is likely to cause a significant and

²² An additional data limitation is that some win-loss databases only allow for the entry of one competitor in the relevant field, and thus do not capture information on competition provided by multiple competitors.

lasting increase in price. Historical data indicating diversion between the products of the merging firms may overstate the competitive risk from the merger for at least two reasons.

First, historical data on diversion patterns may have reflected relatively modest changes in relative prices. Second, past price changes, even if significant, may have been temporary. Either factor is likely to reduce the incentive of both customers and competitors to alter their behavior in ways that would mitigate the effects of the price increases, compared to a hypothesized situation where a merger yields a significant and durable price increase, because more adjustments become economical the larger is the expected price change and the longer is its expected duration.

A critical question for merger analysis involving differentiated products relates to the durability of key product features and attributes. The current positioning of firms' products, which determines customer preferences and diversion ratios, may be based on attributes that are easily changed. If the bases of product differentiation can be readily changed without significant sunk investment, then the possibility of repositioning in response to an attempt by the merged firm to increase price must be given serious weight and conclusions from a static unilateral effects analysis are unlikely to be reliable.²³

Thus, when preliminary data suggest that the products of the merging firms are close substitutes, it is important to confirm that this apparent "closeness" is explained by underlying fundamental factors. For example, in the amphitheatres case discussed in Section 1.1, the win-loss data was supplemented with evidence obtained from promoters as to why they considered the two facilities to be particularly close substitutes: the facilities of the merging firms were geographically close, of comparable size, and open air. Importantly, these characteristics were not shared by other competing facilities and could not be replicated over a relevant time frame. Thus, the deeper investigation determined which assets of the merging firms were "unique assets" that made them close competitors and provided a solid basis to fear that the merger would cause significant and enduring harm to competition.

We conclude that if the Agencies intend to place more emphasis on direct or proxy measures of diversion ratios in evaluating unilateral effects, it will be important to go beyond any direct evidence suggestive of strong competition between the merging firms and supplement it with an understanding of what drives this competition and whether the underlying assets are "sticky" and "unique" to those firms.

A related argument cautions why high market shares sometimes can lead to unreliable inferences about firms' market power and the likely effects of a merger. For example, it may be the case that many firms in a market are well positioned to compete for the business of large customers. Large observed shares could then be explained by very asymmetric ex post outcomes

²³ For an investigation of some of the issues involved in repositioning as a response to a merger, see Amit Gandhi, Luke Froeb, Steven Tschantz, and Gregory J. Werden, "Post-merger Product Repositioning," *Journal of Industrial Economics* 56, no. 1 (2008): 49–67.

resulting from more symmetric ex ante competition. As a second example, share might be measured based on aggregating sales over a long period of time. A firm may have a large share based on its historical success and large installed base, but this large share may not be a good predictor of the firms' ability to compete effectively for future opportunities. In each case, there is not a durable basis for the firm's large share.

4 Efficiencies

Question 14 asks: "Should the Guidelines be updated to state that any cognizable cost reductions are relevant to the extent they are likely to generate benefits for customers in the foreseeable future?" In our view as economists, all efficiencies should be given some credit, whether they involve marginal costs or fixed costs. Both of these represent savings in real resources and, hence, should be given some weight regardless of whether they are expected to benefit customers in the relevant markets in the foreseeable future. In advocating this stance, we do not take a position on whether antitrust should pursue "total welfare" or "consumer welfare." Even if one placed lower weight on the profits of the merging firms than on the welfare of their trading partners, placing zero weight on the former would be an extreme position and inconsistent with prudent public policy.²⁴

5 Conclusions

Our comments have highlighted a few areas where modest revisions to the Guidelines would assist sound economic analysis of the competitive effects of proposed mergers, and would prevent the language of the Guidelines from impeding good enforcement. We have also highlighted, however, areas in which revisions, unless carefully crafted, may well lead to over-enforcement and a loss of consumer welfare. We invite the Agencies' consideration of these suggestions as they evaluate possible revisions to the Guidelines.

²⁴ Recent authors have offered interesting perspectives on which welfare standard should guide antitrust policy. A total welfare standard is advocated by Kenneth Heyer, "Welfare Standards and Merger Analysis: Why Not the Best?" *Competition Policy International (CPI)* 2 (2006): 29–54. Several other authors suggest arguments for tilting enforcement procedures towards the welfare of consumers (even if the ultimate goal is overall welfare). See Damien Neven and Lars-Hendrik Röller, "Consumer Surplus vs. Welfare Standard in a Political Economy Model of Merger Control," *International Journal of Industrial Organization* 23 (2005): 829–48; Joseph Farrell and Michael Katz, "The Economics of Welfare Standards in Antitrust," *CPI* 2 (2006): 3–28; and Russell Pittman, "Consumer Surplus as the Appropriate Standard for Antitrust Enforcement," *CPI* 3, 2007, 205–24. But even these authors do not propose discounting entirely the profits of the merging firms.