Detecting and Reversing the Decline in Horizontal Merger Enforcement

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DURING THE 1960S, HORIZONTAL merger enforcement was simple, but also inflexible and overly stringent. Courts and enforcers relied on the "structural presumption" of harm to competition from increasing market concentration. This formula based enforcement almost entirely on market definition and market shares. The rules were clear, but they discouraged pro-competitive mergers.

Now, some forty years later, horizontal merger enforcement has been transformed, largely for the better. The structural presumption remains in force, but it is dramatically weaker. Courts and enforcers today place less weight on market structure, pay closer attention to possible expansion by smaller suppliers and entry by new ones, and exhibit less hostility to merger efficiencies.

We support the modern approach, with its more nuanced, fact-intensive economic inquiry focusing on mechanisms of competitive effects. We are concerned, however, that some courts and enforcement officials have misused this discretion and flexibility. These decision makers appear overly willing to accept defense arguments about entry, expansion, and efficiencies, while downplaying the loss of competition inherent in the proposed merger.

In this article, we document recent problems with horizontal merger enforcement, sketch our diagnosis of their causes, argue that merger enforcement has become too lax, and suggest a proposed solution. Our analysis is largely drawn from our forthcoming book chapter, which provides a more extensive discussion.[1] A narrow portion of that chapter, where we document the decline of enforcement by the Justice Department during the George W. Bush administration, has been criticized by some associated with that administration. We go beyond the analysis in our chapter here to address those criticisms.

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Evaluating the Accuracy of Horizontal Merger Enforcement

There is no easy way to evaluate horizontal merger enforcement in the courts and at the DOJ and the FTC. As explained below, our approach is to rely on several different categories of evidence.

The most compelling way to evaluate the accuracy of merger enforcement policy would be through merger retrospectives—detailed studies evaluating the actual effects of consummated mergers on market prices, product variety, or innovation. The most revealing mergers to study in depth are those that went forward despite presenting serious antitrust concerns. Armed with a large number of such studies, one could, in principle, identify the conditions under which horizontal mergers do, and do not, harm consumers. One could also evaluate the accuracy of the models and techniques used to evaluate proposed mergers, and use the results to develop more accurate techniques for merger evaluation.[2] Unfortunately, while considerable work has been done on merger retrospectives, especially for airline, banking, and hospital mergers, the current state of knowledge about the actual effects of mergers on consumers remains fragmentary.[3]

Lacking comprehensive information based on merger retrospectives, the accuracy of horizontal merger enforcement can still be evaluated by looking at key enforcement and non-enforcement decisions and evaluating the economic reasoning used in those decisions. Litigated mergers typically generate a substantial public record, allowing outsiders as well as the court to review the agency's decision to challenge. We are keenly aware that in many cases where one of the agencies declines to challenge a proposed merger, a great deal of the information available to that agency is confidential and thus unavailable to outsiders. But this information asymmetry cannot and should not be used to shield agency enforcement decisions from any meaningful external review.

In cases where no enforcement action was taken, evaluating the agency's economic reasoning is greatly facilitated if detailed information about the industry is publicly available and especially if the agency issues a closing statement explaining its reasoning. In our book chapter, we describe the March 2006 decision by the DOJ not to challenge Whirlpool's acquisition of Maytag as a highly visible instance of underenforcement. We critique and criticize the economic reasoning in the DOJ's closing statement.[4]

Identifying Trends in Horizontal Merger Enforcement

So far we have discussed how to evaluate the accuracy of merger enforcement. Separately, one can analyze *changes over time* in merger enforcement. Put crudely: Has enforcement become more lax or more stringent over time? Trends are far easier to identify and document than accuracy. Of course, the two concepts are closely related: if merger enforcement currently is well-calibrated to produce accurate decisions following a significant decline in stringency, it must have been overly stringent earlier. Likewise, if merger enforcement was well calibrated earlier and then declined significantly in stringency, it must currently be overly lax.

Survey Evidence. One of the goals of our study was to test the hypothesis that merger enforcement has become more lax in recent years. To do so, we conducted a survey of twenty experienced antitrust practitioners, taken from a third-party list of leading antitrust lawyers in the District of Columbia. Our survey respondents consistently reported that the "likelihood of successful agency review for the merging firms" for a given horizontal merger is sharply higher now (March 2007) than it would have been ten years ago (when Joel Klein ran the DOJ and Robert Pitofsky headed the FTC). On a five-point scale, with 5 corresponding to "significantly more favorable," the average score was 4.9. By asking about a given horizontal merger, this question was designed to correct for any possible shift in the mix of deals presented to the agencies. Our survey respondents perceived changes in merger enforcement occurring at all stages of the merger review process: fewer second requests, a greater likelihood that an investigation will be closed rather than lead to an enforcement action, and a willingness to accept weaker remedies in those cases where enforcement actions are taken.

We believe that our survey provides compelling evidence that there has been a sharp shift over the past ten years towards a less stringent horizontal merger enforcement policy.[5] The survey responses also confirmed that the shift has been much more pronounced at the DOJ than at the FTC. Additionally, we asked our survey respondents whether they saw a significant substantive difference today between merger enforcement at the DOJ and the FTC. On a five-point scale, where 5 corresponds to the DOJ being significantly tougher, the mean score was 1.9, indicating that the DOJ is generally seen as more lax.

Our survey respondents reported a shift towards more lax merger enforcement, regardless of whether or not they judged that shift to be in the public interest. Many respondents expressed concern that merger enforcement has become too lax. Others applauded the current policy as a welcome shift from an overly stringent policy ten years ago. Both groups detected the shift. Indeed, so far as we can tell, there is a consensus among antitrust practitioners who follow merger enforcement closely that such a shift has occurred, except perhaps among the decision makers at the agencies during the current administration.

Merger Enforcement Data. Merger enforcement data provide another method for identifying trends in merger enforcement.[6] These data have the advantage of being objective and comprehensive, and covering a much longer time period, twenty-five years. The key statistic is agency enforcement actions (litigation, consent settlements, and abandonments) as a fraction of Hart-Scott-Rodino (HSR) filings. This statistic was constructed and analyzed for the years 1982 to 2000 by Commissioner Thomas Leary, and updated through the first eleven months of fiscal year 2007 by us.[7] In Leary's data, merger enforcement actions averaged 0.9 percent of HSR filings during the typical term at one agency (or 1.8 percent at both agencies combined). The low absolute level of these figures reflects the commonplace observation that most mergers do not raise serious antitrust concerns.

The enforcement rate bottomed out at only 0.4 percent—less than half the average—at the DOJ during two separate time periods. Indeed, the most striking feature of these data is how far the DOJ enforcement rate fell during these periods, relative to the historical average. The first period with a 0.4 percent enforcement rate occurred during the second term of the Reagan administration. The data from that period are consistent with contemporaneous reports that senior officials frequently overruled staff recommendations to challenge acquisitions, and the few mergers that were challenged were typically mergers to very high levels of concentration. The second low point for merger enforcement was at the DOJ during both terms of the George W. Bush administration. These merger enforcement data are consistent with our survey results.

These figures can be interpreted as reflecting merger enforcement activity at the agencies—and in particular as demonstrating lax merger enforcement at the DOJ during the current administration—with two important caveats emphasized in our book chapter. First, merger enforcement rates may be affected by unobservable changes in the composition of HSR filings. For example, the current DOJ enforcement figures could be low without reflecting a change in the underlying enforcement policy if they now include a greater proportion of non-horizontal mergers involving private equity and hedge fund buyers that do not tend to raise competition issues. This possibility has been pressed by some of our critics from the current administration.[8]

We are skeptical of this benign interpretation of the low merger enforcement rate during the current administration, however. It cannot rationalize the recent drop in DOJ enforcement actions unless an implausibly large fraction of all HSR filings now involve non-horizontal deals. The statistics cited by Timothy Muris do not convince us otherwise.[9] Muris relies on horizontal overlaps in the 4-digit SIC industry codes and 6-digit NAICS industry codes reported by merging firms when specifying their business activities in their HSR filings. Yet most of the mergers recorded as horizontal on this basis are probably not actually horizontal in the sense relevant to antitrust analysis. These industry codes describe groups of activities that are generally far broader than antitrust product markets,[10] and even if they share an antitrust product market they may be located in different geographic markets. For these reasons, most of these mergers likely involve complementary business activities. This interpretation is consistent with the magnitude of the horizontal overlaps suggested by these data: we very much doubt that anything like half to two-thirds of proposed mergers during any time period involved meaningful overlaps in relevant antitrust markets, as the approach taken by Muris implicitly assumes. Any shift in the fraction of "horizontal" overlaps computed according to the Muris method is most likely dominated by fluctuations in the percentage of deals that involve complementary activities, not substitutes, and is unlikely to reveal much about the possibility that the proportion of true horizontal mergers changed over time.[11]

Even if the HSR overlap statistics relied upon by Muris are taken seriously as measures of horizontal overlap, they do not provide a benign explaination for the low rate of merger enforcement during the current administration. The overlap averaged 60.9 percent during the second term of the Clinton administration, and was only slightly lower, 58.7 percent, during the first term of the current administration, so these data could not explain the low enforcement rate at DOJ during the Bush administration's first term.[12] Even if the larger decline in horizontal overlaps cited by Muris is considered an accurate measure of a decrease in true horizontal overlaps, moreover, that decline accounts for only about three-sevenths of the additional non-horizontal filings that would be necessary to rationalize the low DOJ enforcement rate in terms of private equity and hedge fund deals. Even then, that interpretation could only be reconciled with the absence of a comparably large drop in enforcement actions at the FTC during the current administration by assuming, again implausibly, that the bulk of the new private equity and hedge fund deals involve industries in which DOJ rather than the FTC would be expected to review the merger.

Second, and even more important, the mix of deals presented to the agencies, in terms of the severity of antitrust issues they raise, depends in part on what firms anticipate from antitrust enforcers. Firms learn about changing agency enforcement patterns from their antitrust advisors, who track enforcement trends. To the extent that advice is informed and heeded, we would expect to see a similar fraction of challenged deals every year, mainly comprised of "judgment calls" close to the line, regardless of where the line is drawn. It is unlikely that this adjustment is instantaneous, however, as it may take time for lawyers to infer changes in agency views from enforcement decisions and official rhetoric, and perhaps longer for clients to be convinced.

For this reason, an unusually low enforcement rate figure should be interpreted as indicating an *unanticipated* recent decrease in merger enforcement, and an unusually high figure should be interpreted as indicating an unanticipated recent increase in merger enforcement. Therefore, changes in enforcement rates will tend to *underestimate* changes in enforcement, in both directions. This observation justifies interpreting large, sustained dips in the enforcement rate to levels below the norm as reflecting substantially more lax merger enforcement.[13]

Under this interpretation, the strikingly low merger enforcement rate at the DOJ during the second term of the Reagan administration suggests that the Antitrust Division under AAGs Ginsburg and Rule surprised the antitrust bar with their lack of interest in challenging mergers, consistent with the view that the Antitrust Division during that period was unusually permissive toward horizontal mergers. Similarly, the sustained and equally low enforcement rate at the DOJ during the current administration means that enforcement has been surprisingly low—at the start after accounting for any initial expectations that a new Republican administration might resolve close cases more in favor of permitting mergers than would the Democratic administration that preceded it, and over time after accounting for what antitrust advisors learned from that initial experience. Moreover, a recent study finds that in the late 1990s toward the end of the Clinton administration, the "marginal" merger—a close call that the enforcement agencies chose not to challenge—led to a small but significant increase in prices a year or so later.[14] This result suggests that enforcement policy then was, if anything, too lax. With a further sustained decline in the enforcement rate, enforcement policy at the DOJ today is almost surely inadequate.

The low merger enforcement rates at the DOJ during both terms of the current administration and the second term of the Reagan administration are not approached during any other presidential term during the period covered by the data. The closest is the somewhat depressed rate during the second term of the current administration at the FTC, which is slightly less than halfway between the historical average and the low DOJ rates. The Clinton administration enforcement action rate, like the enforcement action rate at the FTC during the first term of the current administration, was close to the historical average, indicating that these enforcers did not surprise the antirust bar with their approach to merger review. In particular, the Pitofsky FTC brought enforcement actions at the rate of 0.75 percent of HSR filings—similar to the Muris FTC's 0.8 percent rate, close to the historical average of 0.9 percent, and roughly double the rate of the current DOJ.[15] The Klein DOJ was slightly above the historical average, at 1.0 percent.[16]

Had the two federal enforcement agencies challenged mergers during 2006 and 2007 at the rate the FTC did during the first term of the current administration, the agencies would have challenged twenty-four more mergers each year (fifteen more at the DOJ and nine more at the FTC). While we do not know which particular mergers would have been challenged had merger enforcement been closer to the average rate, and thus had merger enforcement been consistent with the antitrust community's expectations, this computation offers a conservative estimate of the number. In general, it is difficult to second guess individual decisions because each case is fact intensive, most of the relevant evidence is confidential (unless the case is litigated), and the agencies only occasionally explain decisions not to challenge proposed mergers. Still, one experienced practitioner in our survey cited the Whirlpool/Maytag merger, which was permitted to proceed without challenge by the DOJ in 2006, as a "close deal" in today's merger environment that "would have had a hard time" getting through the DOJ ten years ago. Based on our knowledge of this particular high-profile matter, we agree. We also question the DOJ's closing statement defending its March 2008 decision not to challenge the proposed merger between XM and Sirius, the only two providers of satellite radio in the United States.[17]

The merger enforcement data and our survey of experienced practitioners together paint a picture of declining horizontal merger enforcement, especially at the current DOJ. Not surprisingly, one of our survey respondents stated that he/she was advising, "If you want to do a dicey deal, get it done before the [2008] election." This view was echoed by a number other respondents.

Questionable Judicial Decisions

The long-term changes in horizontal merger enforcement have involved the courts as well as the agencies, with each at times spurring on the other. The Merger Guidelines, and the arguments the agencies have made when litigating challenged mergers, have shown the courts how to conduct merger analysis as the role of the structural presumption has diminished. At the same time, the agencies pay attention to judicial decisions for the mode of analysis they use and for the precedent they establish. Indeed, part of the explanation for the declining enforcement at the DOJ in recent years may be the losses the DOJ sustained in court in the *SunGard* and *Oracle* cases, which likely made it more cautious about bringing merger cases.[18]

As the structural presumption has weakened, merger enforcement has on the whole improved. The agencies and courts have generally used the resulting increase in decision-making flexibility to undertake careful, fact-based economic analyses of the competitive effects of proposed transactions. But, as we describe in more detail in our book chapter, the same flexibility has also permitted some courts to make mistakes in their economic analysis. In one noteworthy example, the Ninth Circuit, in an opinion by Judge Alex Kozinski, accepted the lower court's view that entry was easy and that competition was not harmed after considering whether new firms *could* enter the market, without recognizing that it is necessary also to evaluate whether those firms likely *would* do so.[19]

A more recent example can be found in the district court decision declining to enjoin Oracle's acquisition of PeopleSoft. In that case, Judge Vaughn Walker held that "[t]o prevail on a differentiated products unilateral effects claim, a plaintiff must prove a relevant market in which the merging parties would have essentially a monopoly or dominant position."[20] This statement is based on a clear error in economic reasoning. A dominant position is not required for the exercise of market power through unilateral competitive effects even in the commonly used horizontal differentiation model that Judge Walker appears to have in mind: unilateral effects will arise so long as some customers of one of the merging firms consider its merger partner's product as their second choice, even if more of the firm's customers consider a third firm's products to be their second choice. If Judge Walker's view of the legal standard is followed by other courts, it would create an unfortunate gap in merger law by undermining the ability of the enforcement agencies to rely on the theory of unilateral effects, which is well-established in economics and has been used effectively in the past by the agencies to attack a large class of anticompetitive mergers.

Economic Arguments Merging Firms Love to Make

In a world where the structural presumption carries less weight than in the past, the enforcement agencies typically no longer consider it sufficient to show that a proposed merger will lead to a significant increase in concentration in a properly defined relevant market. Rather, in their internal merger review and in litigating challenged mergers in court, the agencies typically seek to establish a particular mechanism by which anticompetitive effects would occur.

We bolster the evidence set forth in our book chapter that courts and enforcement agencies at times take the flexibility provided by the eroding structural presumption too far by sketching several arguments that are commonly made by merging parties which appear to be accepted more readily by the agencies, especially the DOJ, than in years past. These claims may occasionally be justified by the evidence. However, these claims are unlikely to hold, and to have sufficient force to overcome the structural presumption, nearly as often as they are proffered by merging firms. If these arguments are routinely and uncritically accepted by the agencies and the courts, they would collectively remove virtually all mergers from antitrust review.

First, the non-interventionist approach to merger control policy relies heavily on the proposition that little can be learned in general about the extent of rivalry, and industrial performance, from market concentration. Our survey respondents confirm that the agencies are much more receptive now than ten years ago to the argument that "market concentration is not a good basis for predicting competitive effects." A strong version of this proposition states that effective competition typically requires only three, or even two, strong suppliers.

This argument starts from an important insight—that evaluating likely competitive effects involves more than measuring changes in concentration—but goes too far. Modern oligopoly theory makes clear that in the absence of entry and merger efficiencies, a merger that leads to a substantial increase in market concentration will tend to raise price, harm consumers, and reduce economic efficiency. By the nature of game theory, there are special cases where concentration does not matter, but these examples are not robust. For example, suppose firms offer differentiated products and set prices independently. There is a general result in such models that mergers will raise price unless they trigger new entry or product repositioning by existing competitors or generate merger-specific efficiencies. In one special case, however, a merger will have no impact on price, so long as at least two firms remain after the merger: the case in which the firms sell homogeneous products, have identical costs, and set prices in a one-shot (Bertrand) game. In this very special case, prices are equal to marginal cost so long as at least two firms remain after the merger. In virtually all mergers, this special case can easily be shown not to apply; usually, one can directly observe that prices are not close to marginal cost, typically because the firms sell differentiated products or brand names are important, and over the long run real-world price-cost margins must be large enough to allow recovery of various fixed costs such as R&D costs.

Likewise, economic theory says that, in a bidding market, mergers typically cause price to rise, unless one of the merging firms is generally known to be an ineffective competitor, in the sense that it has no real chance of being the first or second choice of any buyer.[21] Yet this does not stop merging firms, and non-interventionists, from arguing that "two is enough." Plus, additional dangers arise under a theory of coordinated effects when a maverick is acquired by one of its rivals. Overall, in the absence of merger synergies, oligopoly theory robustly predicts that losing a significant competitor will lead to higher prices.

We are not suggesting a return to a mechanical, concentration-based approach to merger policy. We are simply pointing out that large increases in market concentration should be given real weight in merger analysis, and that any contrary presumption that "two is enough" (or even three) is unsupported by economic theory. Likewise, the empirical literature finds that substantial increases in concentration may generate significant increases in price, although many factors other than concentration are also important in determining the price effects of mergers.[22]

Similarly, one sometimes hears that "the prospect of entry typically deters or counteracts anticompetitive effects of mergers." Again, there are simple economic models in which the prospect of entry does indeed counteract or deter any competitive problem. These include the model in which there is a perfectly elastic supply from entrants at the current market price, and the model of contestable markets in which entry does not involve any sunk costs. These variants of the standard model of perfect competition might apply to some markets, but they are extremely special and certainly not an appropriate basis for a general presumption in merger policy. Moreover, contrary to what is sometimes suggested, the mere presence of some examples of entry, in which the entrants have not (yet) exited the market, should not form a basis for embracing the view that entry will solve any competitive problem caused by the merger, especially when the shares of the merging firms are large and those of the recent entrants are small. Whether entry would solve or counteract the competitive problem from merger is a matter for analysis not presumption.

Finally, we offer a caution with respect to evaluating efficiency claims, which are increasingly and appropriately taken seriously by courts and enforcers. There is considerable evidence that acquiring firms are systematically over-optimistic about the efficiencies they can achieve through acquisition. This evidence does not support the view that merger-specific efficiencies are common or that claims of efficiencies made by merging parties should generally be credited. While some mergers are undoubtedly motivated by the pursuit of genuine efficiencies and go on to generate them, arguments by merging firms that efficiencies will enhance their ability and incentive to compete, resulting in lower prices, higher quality or new products, should be accepted only after careful analysis, not based solely on their plausibility.

Structuring Merger Analysis in a Post-Chicago World

The challenge facing those who seek effective and principled merger enforcement policy is to develop a set of analytical steps that charts a moderate course: relying on measures of market share but not excessively, and not accepting the three "E" arguments of entry, expansion, and efficiencies without first testing them rigorously using real-world evidence.

We believe that such a moderate course must include the use of suitably crafted presumptions that have real bite in the sense that strong evidence is required to overcome them. Unless the agencies have some simple and sensible way of establishing a presumption of harm to competition, consistent with sound economic analysis, which the merging parties must then overcome to persuade a court to permit the transaction, few proposed mergers will be subject to effective challenge. While some may welcome that result, we do not believe such a lax approach to merger enforcement is consistent with sound antitrust policy, or with the statutory language or intent of Congress.

It is essential that presumptions employed in merger review have a sound economic grounding. They must be based on observable features of market structure that economic understanding suggests correlate well with harm to competition. The time has come to update the structural presumption to reflect advances in economic learning as well as the lessons learned from the record of merger enforcement over the past forty years. We do not seek to discard the structural presumption, nor to return to the more mechanical approach from the 1960s. Rather we seek to reinvigorate horizontal merger enforcement with presumptions that are both practical and based on sound economic analysis.

To do so, we outline the factual showing we think should be sufficient to create a presumption that a proposed horizontal merger creates adverse coordinated or unilateral competitive effects, given the modern economic understanding of the effects of mergers on competition. We intend this stage of the analysis to fill the dual role the structural presumption has played in the past: to identify factual showings that would satisfy the agency's initial burden, and to give a court confidence that if the specified elements are ultimately established, harm to competition would indeed likely result. Under our recommended approach, rebuttal is certainly possible, but requires that the merging parties present strong evidence, consistent with premerger market conditions and economic theory, showing that the anticompetitive effects alleged by the agency are not in fact likely to result from the merger.

We also intend the presumptions we set forth to be consistent with the established legal framework for merger analysis. Since the 1960s, the Supreme Court has come to recognize in other areas of antitrust that direct evidence of harm to competition can obviate the need for inferring that harm from market concentration.[23] Indeed, direct evidence regarding competition, such as evidence of buyer responses to past price movements or the costs of consumer switching, can be more probative than indirect evidence in the form of market shares. To the extent we employ markers other than market concentration for identifying adverse competitive effects, therefore, we think that doing so is consistent with the contemporary judicial understanding of the role played by market structure and other economic evidence in demonstrating market power and anticompetitive effects.

We propose two different, alternative approaches to establishing a presumption of harm to competition through coordinated effects.[24] Both approaches begin by defining the relevant market, along the lines described in the Merger Guidelines, and by showing that the firms participating in that market could reasonably expect to solve the "cartel problems" of reaching consensus on terms of coordination and deterring deviation from those terms. Beginning with market definition dovetails nicely with theories of coordinated effects, since it involves identifying a group of firms, including the merging parties, that would find it profitable to engage in coordination.

Then the agency must explain why it is plausible that the merger will harm competition, relying on either of two approaches. Under the first route for establishing a presumption that the merger will have an anticompetitive effect, the agency would identify the likely maverick, and explain how the merger would change the maverick's incentives so as to make coordination more likely or more effective. Proof that the acquisition involves a likely maverick should be sufficient basis to presume harm to competition, for example.

Under the second route, the agency would show that the odds are high that a maverick firm (not specifically identified) would prefer a higher coordinated price post-merger, thus making coordination more likely or successful. To do so, the agency would look to the number of significant firms—firms that could not be ignored by a cartel—and to the effect of the merger on the differences among sellers. We could imagine several ways of making the necessary demonstration. One involves simply a reduction in the number of significant firms. Alternatively, if it is difficult to be confident which individual sellers are significant, a presumption based solely on market concentration could be applied. At lower levels of concentration than would be sufficient to invoke a presumption based on concentration alone, a court could still presume that the merger makes coordination more likely or more effective if the agency also shows that the merger has made sellers more similar, as by reducing asymmetries in costs or product attributes. Consistent with the legal framework, these presumptions would be rebuttable. But rebuttal arguments based on entry, expansion, and efficiencies must be based on strong evidence that is consistent with economic theory and premerger industry conditions in order to prevail.

Our proposal for establishing presumptions in merger cases alleging unilateral effects among sellers of differentiated products also allows the agency to establish its prima facie case in either of two ways. Both routes require the agency to show that the merger will give the merged firm an incentive to raise the price of one or more of its products significantly, taking as given the prices charged by non-merging firms.

The first and more traditional route is for the agency to define the relevant market, following the methods in the Merger Guidelines, show that the merger will substantially increase concentration in that market, and articulate the mechanism by which the merger will cause a price increase. This mechanism will typically follow from the basic logic of unilateral competitive effects, with reference to the size of the diversion ratios and premerger price-cost margins on the overlap products sold by the merging firms.[25] If the market shares of the merging firms are small, for example, the agency may fail to meet its initial burden. This route is consistent with a "default" assumption that the diversion ratios between the products sold by the merging firms are proportional to their market shares, as in the logit model of demand. This assumption could be rebutted by evidence showing that the products sold by the merging firms are relatively distant substitutes within the relevant market. Contrary to what the court required in *Oracle*, we would not insist that the merged firm have a dominant or near-dominant market share.

The second route is more direct and does not rely on defining the relevant market and measuring market shares. Following this route, the agency must establish that the diversion ratio between the merging firms' products and the gross margins on those products are large enough to give the merged firm an incentive to raise the price of one or more of those products significantly. Diversion ratios would summarize the information as to buyer substitution between the products sold by the merging firms in a quantitative way, even if the most probative evidence about the magnitude of buyer substitution were qualitative rather than quantitative. We envision the agency offering a straightforward calculation based on diversion ratios and price-cost margins, along with some sensitivity analysis, although the agency also could obtain the benefit of the presumption by presenting a more detailed simulation model.[26]

We certainly do not propose a return to the horizontal merger control policies and precedents of the 1960s. The presumptions we have described would not be irrebuttable, though they would be influential. They would be based on aspects of market structure, but not solely on market concentration, and in some cases, not on market concentration at all.

We hope that our proposals will stimulate discussion about how best to reinvigorate merger enforcement, while leaving the details of an improved merger control framework to that discussion and future work. ■

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[1] Jonathan B. Baker & Carl Shapiro, *Reinvigorating Horizontal Merger Enforcement*, *in* WHERE THE CHICAGO SCHOOL OVERSHOT THE MARK: EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON U.S. ANTITRUST (Robert Pitofsky ed., forthcoming 2008).

[2] *See* Dennis Carlton, The Need to Measure the Effect of Merger Policy and How to Do It (Antitrust Division, Department of Justice Economic Analysis Group Discussion Paper, EAG 07-15, Dec. 2007), *available at* http://www.usdoj.gov/atr/public/eag/228687.pdf. Carlton emphasizes that merger retrospectives are of limited usefulness unless combined with data on the specific premerger predictions of merger effects made by the antitrust enforcement agencies.

[3] For a review of the empirical literature on the effects of mergers, see Paul Paulter, *Evidence on Mergers and Acquisitions*, 48 ANTITRUST BULL. 119; Louis Kaplow & Carl Shapiro, *Antitrust*, in 2 HANDBOOK OF LAW AND ECONOMICS Sec. 4.3 (A. Mitchell Polinsky & Steven Shavell, eds., 2007), *available at* http://faculty.haas.berkeley.edu/shapiro/antitrust2007.pdf. For an informative recent merger retrospective study using scanner data, see Orley Ashenfelter & Daniel Hosken, *The Effect of Mergers on Consumer Prices: Evidence from Five Selected Case Studies* (NBER Working Paper No. W13859 Oct. 2007).

[4] Department of Justice Antitrust Division Statement on the Closing of its Investigation of Whirlpool's Acquisition of Maytag, March 29, 2006, *available at* http://www.usdoj.gov/atr/public/press_releases/2006/215326.pdf. Prior to making our draft chapter public, we provided it to the DOJ for review, but the Department declined to offer any comments.

[5] Timothy Muris questions the ability of "even sophisticated external observers to evaluate fully non-public investigations in which they did not participate." Timothy J. Muris, *Facts Trump Politics: The Complexities of Comparing Merger Enforcement Over Time and Between Agencies*, ANTITRUST, Summer 2008, at 37, 38 n.4. But our survey respondents typically were involved personally in multiple investigations, their partners were involved in other deals under review, and they do not need to undertake *full* evaluations in order to reach informed conclusions from reading agency statements about still other agency reviews in which they were not involved.

[6] As emphasized here and in our book chapter, our conclusions regarding trends in merger enforcement are not based solely on analyzing these data, contrary to what Timothy Muris claims. Muris, *supra* note 5, at 38. We also rely on our survey of practitioners and our review of public information regarding individual investigations.

[7] Thomas B. Leary, T*he Essential Stability of Merger Policy in the United States*, 70 ANTITRUST L.J. 105 (2002). Updating required accounting for the change in Hart-Scott-Rodino reporting rules that took effect in 2001, which reduced the number of mergers filed by 60 percent. When we discuss merger enforcement rates (enforcement actions relative to HSR filings) for 2001 and later, the figures we report are not the actual enforcement rates but rates converted to make them comparable to those reported before 2001. A 0.9 percent enforcement rate before 2001 is equivalent to a 1.8 percent enforcement rate today.

[8] Muris, *supra* note 5, at 38; David L. Meyer, Merger Enforcement Is Alive and Well at the Department of Justice (Nov. 15, 2007), *available at* http://www.usdoj.gov/atr/public/speeches/227713.htm .

[9] Muris, *supra* note 5, at 38.

[10] Russell W. Pittman & Gregory J. Werden, *The Divergence of SIC Industries from Antitrust Markets: Indications from Justice Department Merger Cases*, 33 ECON. LETTERS 283 (1990); Gregory J. Werden, *The Divergence of SIC Industries from Antitrust Markets: Some Evidence from Price Fixing Cases*, 28 ECON. LETTERS 193 (1988). The 6-digit NAICS codes are intended to be comparable to 4-digit SIC codes. *See* Premerger Notification; Antitrust Improvements Act Notification and Report Form, 66 Fed. Reg. 23,561, 23,562 (May 9, 2001). Because these codes are defined based on production processes, a supply side consideration, it is also possible for them to be more narrow than antitrust product markets.

[11] Muris's interpretation of these data is also suspect because the decline in the proportion of horizontal mergers he claims to observe would imply a substantially greater magnitude of private equity and hedge fund transactions than is suggested by the data we have seen. *See* Baker & Shapiro, *supra* note 1, at n.86.

[12] FTC Bureau of Competition, FY 1988–FY 2007 Billable HSR Transactions, Economic Focus and Overlap Analysis (unpublished analysis supplied to the authors pursuant to a Freedom of Information Act request). These numbers are weighted averages of the annual figures reported by the FTC. Fiscal years were assigned to administrations with a one year lag, consistent with the way merger enforcement rates were computed. The preliminary average for the second term of the current administration, based on only two years data, was 51.3 percent. In his remarks at the Chair's Showcase Program at the ABA Antitrust Section 2008 Spring Meeting, Muris selected the highest annual figure from the Clinton second term for comparison with the lowest annual figure from the current administration (which occurred during Bush's second term) instead of comparing multi-year averages. *See* Muris, *supra* note 5, at 38. In his sidebar in this issue, Muris also reports an overlap figure for 1996 and an overlap figure for the first term of the Clinton administration (*Id.* at n.3) notwithstanding the FTC's warning against relying on pre-1998 figures: "Note: the only period for which consistent information on billable transactions with economic overlap (Item 7) is available is for Fiscal Years 1998–2007. For the period 1990–1997, there are deficiencies in the data resulting from a changeover in agency database systems that resulted in the loss of some information."

[13] Another possible cause of a declining enforcement rate is increased predictability. Under this view, enforcement actions, at least those blocking proposed mergers rather than just requiring divestitures, result when the merging parties expect their deal to be approved but it is not. If merging parties then improve their ability to predict agency decisions, the enforcement rate would decline at any given level of agency stringency. This transparency explanation cannot easily be reconciled with the lower enforcement rates at the DOJ than at the FTC, however, especially since the FTC was widely praised for its increased transparency following its closing statement in the cruise lines merger in October 2002. *See* http://www.ftc.gov/opa/2002/10/cruiselines.shtm.

[14] Ashenfelter & Hosken, *supra* note 3.

[15] The enforcement rates for the Pitofsky FTC do not include enforcement actions attributable to the period during which Janet Steiger served as FTC Chairman.

[16] In his sidebar, Timothy Muris suggests that the very high enforcement rate of the Steiger FTC is explained by its unusual willingness to accept "cheap" consent settlements following a limited investigation (which he implicitly assumes reflect settlements taken without an underlying antitrust violation rather than inadequate remedies for serious competitive problems), that a wave of radio mergers during the late 1990s explains why the Klein DOJ enforcement rate exceeded that of the Pitofsky FTC (notwithstanding that only one in seven such transactions was HSR reportable), and that the Majoras FTC was an "aggressive" enforcer (rather than simply doing its job) given that the merging firms declined to settle three transactions that the agency found troublesome on terms the FTC would accept and chose instead to litigate. Muris, *supra* note 5, at 38. Whatever the merits of these suggestions, they do not explain away a key "apples to apples" (as Muris would put it) statistical comparison, confirmed by our survey results: that the FTC challenged mergers at about the historical rate during the first term of the current administration, while the DOJ leadership during the same period challenged mergers at an unusually low rate.

[17] Statement of the Department of Justice Antitrust Division on Its Decision to Close Its Investigation of XM Satellite Radio Holdings Inc.'s Merger with Sirius Satellite Radio Inc., *available at* http://www.usdoj.gov/atr/public/press_releases/2008/231467.htm. Most notably, the statement acknowledges that direct competition between XM and Sirius had reduced the price paid by car buyers for satellite radio systems. Yet the Department permitted XM and Sirius to merge, in large part on the ground that they had entered into exclusive dealing agreements with automobile manufactures that last for several years. Taken on its face, this approach denies consumers the benefits of competition once those exclusive dealing agreements end. The Department conjectures that new alternatives to satellite radio may emerge in the future, by the time the long term exclusive agreements with car manufacturers expire. But the statement also recognizes that it is difficult to predict whether and when these alternatives would become attractive to satellite radio buyers, and the statement does not analyze the extent to which these alternatives would be viewed by buyers as sufficiently close substitutes to prevent adverse unilateral competitive effects.

[18] United States v. SunGard Data Sys., 172 F. Supp. 2d 172 (D.D.C. 2001); United States v. Oracle Corp., 331 F. Supp. 2d 1098 (N.D. Cal. 2004).

[19] United States v Syufy Enters., 903 F.2d 659, 667 n.13 (9th Cir. 1990).

[20] *Oracle*, 331 F. Supp. 2d at 1117–18, 1123. Judge Walker simultaneously expressed skepticism about narrow markets as arbitrary or unprincipled submarkets, *id.* at 1119–21, making it clear that in his view this standard would be virtually impossible in practice to meet.

[21] *See* Paul Klemperer, *Competition Policy in Auctions and "Bidding Markets," in* Handbook of Antitrust Economics (Paolo Buccirossi ed., 2008).

[22] Jonathan B. Baker, *Market Concentration in the Antitrust Analysis of Horizontal Mergers*, *in* Antitrust Law & Economics (Keith Hylton ed., forthcoming 2009) (manuscript at 7–8), Working Paper *available at* http://ssrn.com/abstract=1092248.

[23] FTC v. Indiana Fed. of Dentists, 476 U.S. 447 (1986); NCAA v. Board of Regents, 468 U.S. 85 (1984).

[24] *See generally* Jonathan B. Baker, Mavericks, *Mergers, and Exclusion: Proving Coordinated Effects Under the Antitrust Laws*, 77 N.Y.U. L. Rev. 135 (2002); Andrew R. Dick, *Coordinated Interaction: Pre-Merger Constraints and Post-Merger Effects*, 12 Geo. Mason. L. Rev. 65 (2003).

[25] On the economics of unilateral effects, *see generally* Carl Shapiro, *Mergers with Differentiated Products*, Antitrust, Spring 1996, at 23; Kaplow & Shapiro, *supra* note 3; Jonathan B. Baker, *Unilateral Competitive Effects Theories in Merger Analysis*, Antitrust, Spring 1997, at 21, 23.

[26] Forthcoming work by Joseph Farrell and Carl Shapiro develops this approach in greater detail. Shapiro described this work at the FTC's Unilateral Effects Workshop on February 12, 2008. *See* http://www.ftc.gov/bc/unilateral/docs/shapiro.pdf.