

Paper Trail: Working Papers and Recent Scholarship

Editor's Note: Editor John Woodbury comments on lead DOJ economist Carl Shapiro's nearly encyclopedic article on the "whys" and "hows" of the 2010 Merger Guidelines. Send suggestions for papers to review to: page@law.ufl.edu or jwoodbury@crai.com.

—WILLIAM H. PAGE AND JOHN R. WOODBURY

Recent Papers

Carl Shapiro, The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years, 77 ANTITRUST L.J. 49 (forthcoming 2010)

<http://www.justice.gov/atr/public/articles/263528.pdf>

The past decade saw numerous antitrust "events" that helped shape antitrust law and enforcement. These include *Twombly*, *Trinko*, *American Needle*, *Leegin*, *Whole Foods*, *LePage's*, *Oracle*, and (of course) the various *Microsoft* decisions and settlement. And just in time for the end of the decade, the adoption of the 2010 Horizontal Merger Guidelines.¹

On display in the last issue of the *The Antitrust Source* were a number of concerns raised by practitioners about the revisions to the 1992 Guidelines, including the role of market definition, the "new" test for likely unilateral effects (the "value of diverted sales"), and the weight attached to innovation in the 2010 Guidelines.² Carl Shapiro, one of the architects of the 2010 Guidelines and currently the Antitrust Division's lead economist, has authored an "apologia" for the 2010 Guidelines, addressing many but not all of these concerns and (already) extending the Guidelines to encompass a unilateral-effects safe harbor as well as identifying the linkages between the unilateral effects analysis and the market definition exercise.

This paper is a must-read for serious antitrust practitioners. Shapiro's nearly encyclopedic review of the "whys" and "hows" of the 2010 Guidelines will help practitioners in considering how best to address the competitive effects of a merger before the DOJ or the FTC, including what kind of analysis best fits the facts and how best to implement that analysis. There is much more direction here than in the 2010 Guidelines, and one might reasonably wonder whether this "dicta" will carry over to a new front office.

In this note, I focus on Shapiro's discussion of unilateral effects and market definition, given their central importance in identifying mergers falling into safe harbors (and so identifying mergers that may require more scrutiny) and in assessing a merger's competitive effects. Equally important for practitioners, Shapiro's analysis (with assists from other Shapiro efforts) identifies with greater precision the methods for implementing the hypothetical monopolist test (HMT) for

¹ U.S. Dep't of Justice & Fed. Trade Comm. Horizontal Merger Guidelines (2010), available at <http://www.justice.gov/atr/public/guidelines/hmg-2010.html>.

² *Symposium on the 2010 Merger Guidelines*, ANTITRUST SOURCE, Oct. 2010, available at <http://www.antitrustsource.com> [in Archive].

market definition, the analysis of the value of diverted sales and the tight conceptual link between the two. But there is much more food for thought beyond my more focused observations.

For example, the paper begins with a carefully crafted history of the evolution of the Guidelines, as they moved from “hedgehog” guidelines—beginning with the 1968 Guidelines and its concentration-centric focus—to the “fox” guidelines embodied in the 2010 Guidelines that emphasize the variety of analytic and empirical/evidentiary approaches to the antitrust assessment of mergers that has been used by the Agencies and practitioners for some time.

As the paper progresses, it addresses the application of the unilateral effects test to auctions and bargaining as well as to the potential adverse effects of a merger on innovation and product variety. A significant concern here might be that Shapiro, like the 2010 Guidelines, devotes far too little space in discussing what evidence would support claims that a merger will increase innovation and product variety. Indeed, the 2010 Guidelines discourage such claims, noting that they “are potentially substantial but are generally less susceptible to verification.” (Section 10) Given the potential importance of these efficiencies to mergers in high-tech and other industries, some guidance from Shapiro on what evidence could serve to verify these claims would have been helpful.

There are a number of other key Guidelines topics that are not addressed in Shapiro’s paper. For example, Shapiro does not address coordinated effects in the 2010 Guidelines except in passing.³ Entry and repositioning also are discussed only in passing, although in the unilateral effects discussion, Shapiro stresses that any inferences from a test based on the value of diverted sales (discussed below) must be made against the backdrop of possible repositioning and entry. Yet, in the case of differentiated products, Shapiro (pp. 65–66) cites the 2006 *Commentary*, which asserted that repositioning in a differentiated product industry would rarely be timely, likely or sufficient.⁴

One particular surprise is the lack of any discussion by Shapiro of the role of exclusionary conduct in the antitrust assessment of mergers, which is now for the first time included in a set of *horizontal* merger guidelines (Sections 1, 2.2.3, and 6 of the 2010 Guidelines). The assessment of a merger’s effect on the anticompetitive incentive and ability to exclude or otherwise diminish the competitive significance of rivals is now a standard issue addressed by the Agencies (where relevant) in the ordinary course of the Agencies’ merger review. For example, even a casual reading of the press surrounding the now-consummated Live Nation-Ticketmaster merger or (at this writing) the continuing review of the proposed Comcast-NBC Universal merger illustrates the Agencies’ concern with the vertical effects of these deals. Thus, the introduction of the exclusionary considerations falls within the transparency objective of the 2010 Guidelines. While it would have been informative had Shapiro addressed the assessment of exclusion in the Agencies’ merger review, I imagine that would require a separate paper.

Unilateral Effects, GUPPIs, and GUPPI Safe Harbors

Shapiro begins the discussion of unilateral effects in the 2010 Guidelines by acknowledging the analytic advances embodied in the 1992 Guidelines and highlighting the further advances in our understanding and application of the unilateral effects methodology to mergers since 1992, including the increasing reliance on diversion ratios. As most practitioners know, a key input into

³ There is a discussion of accommodating behavior by rivals in a coordinated effects context in a recent Shapiro speech. See Carl Shapiro, Dep. Ass’t Att’y Gen. for Economics, Antitrust Div., U.S. Dep’t of Justice, Update from the Antitrust Division 26–29 (Nov. 18, 2010) [hereinafter Shapiro speech], available at <http://www.justice.gov/atr/public/speeches/264295.pdf>.

⁴ For a contrary view, see Peter Boberg & John Woodbury, *Repositioning and the Revision of the Horizontal Merger Guidelines*, ANTITRUST SOURCE, Dec. 2009, available at <http://www.abanet.org/antitrust/at-source/09/12/Dec09-Boberg12-17f.pdf>.

an assessment of the unilateral competitive effects of a merger where product differentiation is important is the diversion ratio: If Firm 1 raises its price for Product 1, the diversion ratio is the fraction of output lost by Firm 1 that is re-captured by (diverted to) its merger partner. *Ceteris paribus*, the higher the diversion ratio, the greater the increase in the post-merger incentive to raise the price of Product 1.

At the outset of his discussion, Shapiro describes the 1992 Guidelines' discussion of unilateral effects as presenting "a conundrum: how could this [diversion-based] approach be reconciled with the emphasis on market shares found in the case law and perpetuated in the 1992 Guidelines?" (p. 62) Indeed, market shares (and hence market definition) may be completely irrelevant in implementing a unilateral effects analysis.⁵ Yet under the current legal framework, the Agencies must define a market when challenging a merger.⁶

Shapiro notes that one resolution of the conundrum was offered by a former DOJ lead economist and an architect of the 1992 Guidelines, Robert Willig. If market shares could be used as a proxy for the first and second choices of consumers, then diversion from the offerings of one prospective merger partner to that of the other merging partner would be proportional to market share. In that case, defining a market would or could provide a basis for evaluating the unilateral effects of the deal by allowing the Agency (or practitioner) to estimate diversions using market shares.⁷

But Shapiro, like Willig, notes that proportional diversion is a very restrictive assumption, one that is not likely to be satisfied in most real-world mergers. And as Shapiro notes, if diversions are proportional to share, even Willig was unable to find a way to link those diversions to the HHI.⁸

⁵ Nowhere is this tension between a unilateral effects analysis and traditional reliance on market shares for inferring competitive effects more clearly described than in Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition* 16 (Nov. 25, 2008) (working paper), available at <http://escholarship.org/uc/item/35c5f846#page-1>.

⁶ If there were no legal mandate to proffer a market definition in a merger being challenged in court by the Agencies on the grounds that the merged firm would unilaterally increase price, then there would obviously be no enforcement tension. The Agencies (and the parties) would each put on their "best" unilateral effects analysis as described in Section 6 of the 2010 Guidelines. If the Agencies sought a preliminary injunction to stop the merger, the Agencies and the parties would continue the unilateral effects debate before a judge—without ever having to define a market. So, the key reason to define a market in a unilateral effects context is to satisfy the legal requirement in a merger challenge, which means there is the necessity of hammering a somewhat square peg into a round hole. This view is generally consistent with Farrell and Shapiro, *supra* note 5.

⁷ Even if diversion is proportional to market share, it's not obvious why adhering to the hypothetical monopolist paradigm is the right way to define a "market" with differentiated products from which share-based diversion estimates may be inferred. Indeed, the previously cited Farrell and Shapiro working paper observed, "Diversion ratios might also be based on market shares, not necessarily in a 'relevant antitrust market.'" Farrell & Shapiro, *supra* note 5, at 16. The key criteria in this informal "market definition" effort would be to identify "the different products in the market [that] are about equally close substitutes for Product 1 [being offered by one of the merging firms]" and then "one can estimate an aggregate diversion ratio [for products in the market]." *Id.* The authors further note that "these criteria . . . are quite different from the usual criteria for antitrust market definition." *Id.* Let me note that this discussion does not appear in the published version of this paper, Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition*, 10 B.E. J. THEORETICAL ECON., vol. 10, issue 1, art. 9 (2010), <http://www.bepress.com/bejte/vol10/iss1/art9>. It's possible that Farrell and Shapiro have altered their views on this more informal approach to market definition for reasons unknown to me. I certainly don't find any fault with their "unpublished" view, although the unpublished paper does not describe in any principled way how to identify these substitutes.

⁸ Of course, for most mergers, the Agencies don't have to define markets when the issue is unilateral effects because so many mergers are cleared or abandoned before ever going to a court. In these instances, if the antitrust concern is adverse unilateral effects, the Agencies (and the parties) need not define a market.

There are at least two obvious caveats to my assertion. First, the Agencies in reviewing a merger may choose to engage in the market definition exercise to evaluate the strength of their litigation position if the deal were to be challenged. Second, the 2010 Guidelines' formal market definition exercise may be useful as a principled way to identify the other firms that provide "close" substitutes for the products of the merging firms even if the market shares don't inform the unilateral analysis.

Indeed, as practice evolved, the Agencies relied on evidence other than market shares (including inferring diversions via the estimation of complete demand systems) to judge the degree to which the diversion ratios between the products of the merging firms were “high” or “low” and so raise unilateral effects concerns (given the relevant margins). Given the restrictive nature of the proportional diversion assumption, i.e., that in most cases, proportional diversion does not explain substitution patterns of consumers, “the 1992 Guidelines became less helpful to achieve transparent and accurate merger enforcement using a unilateral-effects theory.” (p. 64) Hence, the 2010 Guidelines identified alternative methods that the Agencies and the parties can use and have used to infer diversions not based on market shares, underscoring the 2010 Guidelines’ de-emphasis of using market shares in unilateral effects analysis.

A key “innovation” in unilateral effects analysis in the 2010 Guidelines is the use of an estimate of the “value of diverted sales” between the merging parties to infer the likelihood of post-merger price increases (other things equal). If merger partner Firm 1 raises the price of its Product 1 (holding the prices of all other providers constant), how much of the profits lost by Firm 1 will be recaptured by (diverted to) its merger partner, Firm 2? The greater is the value of diverted sales, the greater is the post-merger incentive to raise the price of Product 1.

In this paper, Shapiro spells out in detail the arithmetic required for the value-of-diverted-sales calculation that is suggested in the 2010 Guidelines.⁹ Suppose Firm 1 (the sole producer of Product 1) and Firm 2 (the sole producer of Product 2) contemplate a merger. Using some simple arithmetic and scaling the value of diverted sales to Firm 2 by the revenues lost by Firm 1, Shapiro defines the Gross Upward Pricing Pressure Index (GUPPI) for Firm 1 as

$$D_{12}M_2(P_2/P_1)$$

where D_{12} is the diversion ratio from Product 1 to Product 2, M_2 is the percentage mark-up (variable margin) for Product 2, and P_2/P_1 is the ratio of the price of Product 2 to Product 1.¹⁰ For any given price ratio, the higher the diversion ratio and the higher the margin, the greater will be the GUPPI.

The GUPPI is calculated before accounting for any efficiencies (or repositioning and entry). As a result, the GUPPI will always indicate upward pricing pressure as long as margins and diversions are positive.¹¹

So, is there a safe-harbor value of the GUPPI, given that it will almost always be positive? The 2010 Guidelines suggest one possibility: the value of diverted sales should be measured against the lost revenues of (referring to the example above) Firm 1 when Firm 1 raises price. If the value of diverted sales relative to the lost revenues of Firm 1 is “small, [then] significant unilateral price effects are unlikely.” (Section 6.1) This is equivalent to saying that the GUPPI is “small.”

⁹ Note 11 of the 2010 Guidelines describes in words how to measure the value of diverted sales, but Shapiro’s discussion both clarifies that measurement and makes that effort understandable and intuitive to practitioners.

¹⁰ Shapiro had suggested a similar metric in *Mergers with Differentiated Products*, ANTITRUST, Spring 1996, at 23. More recently, the notion (and name) of the GUPPI was developed and discussed by two of my CRA colleagues, Steven C. Salop & Serge Moresi, *Updating the Merger Guidelines: Comments* (Nov. 9, 2009), available at <http://www.ftc.gov/os/comments/horizontalmergerguides/545095-00032.pdf>; Serge Moresi, *Upward Pricing Pressure Indices in Merger Analysis*, ANTITRUST SOURCE, Feb. 2010, <http://www.abanet.org/antitrust/atsource/10/02/Feb10-Moresi2-25f.pdf>.

¹¹ Shapiro cautions that the GUPPI value does not indicate the extent to which prices could rise post merger, only the heightened incentive of the merged firm to raise the price of (in this case) Product 1. In order to predict how the GUPPI translates into a price increase requires more structure (i.e., assumptions) about demand in particular.

While in this paper, Shapiro refers to a “small” GUPPI as a quasi-safe harbor, he, like the 2010 Guidelines, never defines “small.” But Shapiro does so in another forum. In the text of a recent speech, Shapiro asserts that “unilateral price effects for a given product are unlikely if the [GUPPI] for that product is less than 5%”—one of the historically mystical percentages in the Guidelines.¹² Shapiro observes that “Current Division practice is to treat the value of diverted sales as proportionately small if it is not more than 5% of lost revenues . . . [A] small amount of upward pricing pressure is unlikely, at the end of the day, to correspond to any actual post-merger price increase.”¹³

By way of perspective, if consumer demand were linear, then a 5% GUPPI would translate into a 2.5% price increase for Product 1, *ceteris paribus*. That is, the predicted price increase is one-half of the calculated GUPPI.

Since this “quasi-safe harbor” is not in the 2010 Guidelines, it’s not clear whether or not this threshold will become a standard safe harbor, a possibility suggested by Shapiro’s reference in his speech to “current Division practice.” Agency practice may change with greater experience with the application of the GUPPI.

Let me also note that Appendix B of the Shapiro paper addresses an oft-heard concern that the “value of diverted sales” test (and so the GUPPI test) is biased against mergers in (for example) the pharmaceutical and software industries because these are industries where the margins tend to be substantial. While this concern is discussed at various points in the text, the focus on that issue in Appendix B is helpful. Shapiro in effect argues that this view of a high-margin bias fails to grasp the underlying economics of unilateral effects. For mergers in these industries, the Agencies would not be attacking the high margin. Instead, given the high margin, it would be using that margin in combination with the diversion ratio to assess the increase in the incentive of one merger partner to unilaterally raise post-merger prices. This is nothing more than the basic economics of unilateral effects analyses. Still, the failure of the 2010 Guidelines and Shapiro’s discussion in this paper to suggest the kinds of evidence that could serve to verify the likelihood that the merger will increase innovation and product variety makes it more difficult for the merging parties to establish an efficiency offset to high GUPPIs being driven by high margins.

As an aside, any concern that the 2010 Guidelines has introduced a new, untested metric—the value of diverted sales—for assessing the likelihood of adverse unilateral effects is misplaced. Shapiro stresses that the “new guidelines have been primarily an exercise in transparency, reflecting ongoing changes in Agency enforcement practice and advances in economic learning.” (p. 52) Merger simulations have been part of the antitrust toolbox for many years. The introduction of the “value of diverted sales” is or should be for many practitioners a more intuitive and less complex substitute for a full-blown merger simulation. Like a simulation, it relies on the margins and diversions of the merging parties—critical inputs into the unilateral effects analysis. The key simplification is that it does not include the feedback from other rivals to any post-merger change in prices by the merged firm (and so may understate the post-merger incentive “pressure” to raise prices). Nor does it impose any structure on demand.

Some practitioners may not be completely sold on unilateral effects analysis, but the more developed parent of the new metric—merger simulation—reflects Agency practice and so is in line with the transparency objective of the 2010 Guidelines. The 2010 Guidelines take the Agency practice as it has evolved since 1992 and simply (with some simplification) memorialize that practice.

¹² Shapiro speech, *supra* note 3, at 24–25.

¹³ *Id.* Shapiro does not indicate whether this is current FTC practice as well.

Market Definition, the Hypothetical Monopolist Test, GUPPIs Again, and HHI Safe Harbors

Shapiro then goes on to discuss market definition and in particular the implementation of the hypothetical monopolist test (HMT), allowing the Agencies to identify mergers that fall within the HHI safe harbors. Shapiro emphasizes that “the 2010 Guidelines recognize the importance of these HHI thresholds to help identify mergers that are ‘unlikely to have adverse competitive effects and ordinarily require no further analysis.’” (pp. 68–69) In his recent speech, Shapiro describes as a “misperception” the concern that “the revised Guidelines have abandoned the HHI ‘safe harbors’ in cases involving unilateral effects.”¹⁴

Shapiro notes that “the hypothetical monopolist’s incentive to raise price on any one product under its control depends on the recapture percentage associated with that product and on the margins it receives on the sales recaptured by the other products [the hypothetical monopolist] owns.” (p. 91) Suppose we are considering whether Products 1 and 2 are a relevant antitrust market. The hypothetical monopolist would have a greater incentive to raise the price of (say) Product 1 the greater the extent to which the lost sales of Product 1 are “recaptured” by (diverted to) Product 2, which is also under the control of the hypothetical monopolist. That is, the recaptured sales are lost to Product 1 but not to the hypothetical monopolist. That, in turn, creates incentives for the hypothetical monopolist to raise the price of Product 1 now that it also owns Product 2. This price-raising incentive increases with the recapture ratio, *ceteris paribus*. And for any given recapture ratio, the higher is the profitability of (the greater the incremental margin earned on) the recaptured sales, the greater will be the incentive for the hypothetical monopolist to increase price.

Shapiro notes that “This is the same basic economic logic [used] in the evaluation of unilateral price effects.” (p. 91) Indeed, Shapiro states the central question in unilateral effects analysis as the following: “Taking as given all other products and their prices, is the profit-maximizing price for Product 1 significantly higher for a firm that owns both Product 1 and Product 2 than it was for Firm 1, which owns just Product 1’ . . . [T]his is *precisely* the same question posed by the hypothetical monopolist test to see if Products 1 and 2 form a relevant market.” (p. 71) Thus, it’s not a surprise that the conceptual implementation of the HMT has a strong kinship with the GUPPI test, particularly when using the HMT suggested by Shapiro and Michael Katz.¹⁵

In the case of linear demand and two symmetric Products 1 and 2 (so that the margin for each product is the same and the diversions between the two are the same), Shapiro shows that the hypothetical monopolist of the two products will have an incentive to raise prices by a SSNIP (small but significant and non-transitory increase in price) of S , if

$$D \geq 2S/(M + 2S)$$

where D is the diversion ratio between the two products and M is the variable margin. (p. 100) With some arithmetic, Shapiro demonstrates that this condition for the two products to be an antitrust market can be rewritten as

$$\text{GUPPI} \geq 2S.¹⁶$$

¹⁴ *Id.* at 17. Yet, as Shapiro noted, there is no relationship between the diversion ratios and the HHI.

¹⁵ Michael Katz & Carl Shapiro, *Critical Loss: Let’s Tell the Whole Story*, ANTITRUST, Spring 2003, at 49. In this paper, Shapiro also highlights (as does the 2010 Guidelines) the (im)proper use of critical loss analysis as an alternative method for implementing the HMT.

¹⁶ Appendix A of Shapiro’s paper addresses in greater detail the GUPPI calculations and its relationship to the HMT. While there is inevitably more “math” in this Appendix, it’s really just arithmetic, very accessible, and very informative in that it serves as the basis for use of the GUPPI (and its relationship to the market definition exercise).

So, if the SSNIP is 5% and the GUPPI is at least 10%, then the two products comprise a relevant antitrust market.¹⁷ If merger partner Firm 1 is the only firm producing Product 1 (and only Product 1) and merger partner Firm 2 is producing Product 2 (and only Product 2), then the two firms alone comprise a relevant antitrust market when the GUPPI is at least 10%.

The use of the GUPPI for the HMT in this way does seem to collide with Shapiro's view that a $GUPPI \geq 5\%$ may require more Agency scrutiny. In particular, there will be cases—perhaps many cases—where a merger will pass the HHI screen even though the GUPPI is greater than 5%.

As an example, suppose the diversion ratio D is 0.2 (i.e., 20%) between the two products of the merging firms. Also assume that the margin M is 35%. Then, the GUPPI is 7% (i.e., D times M and since the products are symmetric, the prices of 1 and 2 are the same). Since the GUPPI is less than 10%, the market must be broadened.

Suppose that as a result of broadening the market, the market share of each of the merging parties is 7%. Then under the 2010 Guidelines, this deal passes the new HHI screen—"Mergers involving an increase in the HHI of less than 100 points are unlikely to have adverse competitive effects and ordinarily require no further analysis." (Section 5.3) As a result, the Agencies are unlikely to take a second look at this deal because the increase in the HHI is less than 100 ($2 \times 7 \times 7$). This is true notwithstanding the fact that the GUPPI of the combined firm exceeds 7%, and so the merger falls outside of Shapiro's unilateral safe harbor.¹⁸ Clearly, the market has been broadened to include a product whose revenues are far more substantial than those of the two merging parties. But this is not as in Example 4 in the 2010 Guidelines (Section 4) where the sale of motorcycles is part of a market that erroneously includes automobile sales. The example here satisfies the HMT using an appropriate methodology. And indeed (by assumption), it satisfies the "smallest market" principle.¹⁹ What might be particularly troubling about this outcome is that my initial conditions—diversion ratios of 20% and margins of 35%—don't seem to be obvious outliers in my experience with unilateral effects analyses. Again, this tension between the HHI and GUPPI safe harbors arises because market share is not necessarily or even typically a good proxy for diversion between the merging parties.

One "out" would be to require that both the HHI safe harbor and the GUPPI safe harbor must be satisfied before the parties are entitled to presume that the merger is "unlikely to have adverse competitive effects and ordinarily require[s] no further [Agency] analysis." (Section 5.3 of the 2010 Guidelines) But that is not a test in the newly-minted 2010 Guidelines. As noted at the beginning of this section, the merger screen is the HHI screen. Consequently, application of the HHI safe harbors could generate more "false negatives," i.e., some mergers that might otherwise generate unilateral effects concerns using the Shapiro GUPPI threshold will slip through the HHI screen. While the fact of false negatives is one that is inherent in the use of a screen, it is not clear whether this

¹⁷ Recall that with linear demand, the predicted price increase is one-half of the calculated GUPPI.

¹⁸ Similarly, one could easily develop examples where the merger does not fall into the delta HHI safe harbor, but yet generates a GUPPI of less than 5%. That circumstance poses less of an issue in that this merger would be further scrutinized by the Agency and that further analysis could conclude that the GUPPI indicates no unilateral effects concerns.

Note that I could have increased the market shares of the merging parties significantly if instead I use another HHI safe harbor—an HHI below 1500. As one example, if each of the merging firms has a 15% share and the remaining 70% is evenly divided among 10 firms, then the post-merger HHI would be 1390 and so the merger would fall into the "unconcentrated" HHI category, thus seemingly escaping scrutiny despite what could be viewed as a troubling GUPPI.

¹⁹ Of course, the 2010 Guidelines relax the "smallest market principle" to acknowledge Agency practice not to adhere to that definition if it would exclude products for which there would in fact be significant post-merger concerns with price increases. But in my example, broadening the market would not resolve these issues.

particular avenue for generating a false negative was a factor in setting the level of the safe harbor thresholds. That is because the HHI thresholds were designed to reflect Agency practice, not conflicts between safe harbors. To be sure, the 2010 Guidelines note that the screen will not be applied in a “rigid” way, but the context of this discussion is quite obviously referring to the consideration of other relevant and offsetting factors for those mergers that fall outside of the HHI safe harbors. (Section 5.3 of the 2010 Guidelines.)

Another “out” is suggested in the previously-cited unpublished version of the Farrell and Shapiro paper: “In cases where there is [upward pricing pressure] but the market shares of the merging firms in the broad market are too low to establish any structural presumption [of a post-merger price increase], the government would need to explain how the merger would lead to the loss of important, localized competition between the two merging firms Many of these ideas relating to localized competition could be expressed in market-definition language using the concept of a ‘submarket.’”²⁰

Concluding Note

As Shapiro observed, economists have thus far been unable to link diversion ratios to HHIs. And market shares based on the application of the HMT may often or even typically be irrelevant for diversions and so for unilateral effects analysis. I don’t think this means that the market definition exercise is irrelevant for setting up the unilateral effects analysis. First, the Katz-Shapiro HMT would allow practitioners to identify participants who provide closer substitutes for the products of the merging firms. That is certainly relevant for consideration of the offsetting effects of post-merger repositioning, even if the shares in the defined market are irrelevant for diversions. (Recall that implementation of the HMT is based on the same kind of diversions that are a key to the unilateral effects analysis.)

Second, market shares may be the only available data for the calculation of diversion ratios (i.e., using proportional diversion for GUPPI calculations). The application of the HMT is one way to develop those share data. But as I noted above, the HMT may not be the only way to identify those firms that provide close substitutes for the products of the merging parties (and the shares of those firms). However, currently, it is the only principled way of identifying those substitutes.

Nonetheless, the use of market-share based safe harbors (i.e., the HHI or the delta HHI safe harbors) may sometimes or perhaps even often allow mergers that would have been more closely scrutinized for adverse unilateral effects to slip through the Agencies’ grasp.

Notwithstanding these tensions, Shapiro’s paper should be, as I stated at the outset, a must-read for practitioners. Shapiro’s discussion is both thoughtful and helpful for practitioners considering how to apply the 2010 Guidelines to specific mergers. This is true as well for the other sections of the 2010 Guidelines addressed in the paper. Going forward, I would expect that the Agencies’ front offices will elaborate on some of the topics not addressed by Shapiro, including the discussion of how to assess the effect of the merger on the incentives to exclude—and perhaps even an explicit “test” for the likelihood of such post-merger conduct. ●

—JRW

²⁰ Farrell & Shapiro, *supra* note 5, at 26. It may well be that Farrell and Shapiro have changed their views on this approach. I still find merit to that approach.