Antitrust, Vol. 24, No. 1, Fall 2009.

Will Use of the Upward Pricing Pressure Test Lead to an Increase in the Level of Merger Enforcement?

BY GOPAL DAS VARMA

JOSEPH FARRELL AND CARL SHAPIRO, Chief Economists of the Federal Trade Commission and the Antitrust Division of the Department of Justice, respectively, have recently proposed an alternative to market definition as a screen for the unilateral effects of a merger between firms that produce differentiated products.[1] This alternative is called the Upward Pricing Pressure (UPP) test. It eschews the traditional structural approach, in which a relevant antitrust market is defined and shares and concentration are calculated to determine whether the merger exceeds certain thresholds ("structural presumption").[2] Instead, the UPP test appeals directly to the economic theory of how a merger alters unilateral pricing incentives.[3] Separately, in his recent writings, Shapiro has argued forcefully that merger enforcement by the agencies was too lax during the George W. Bush administration and he recommended strengthening merger enforcement activity by, among other things, updating the structural presumption.[4] The agencies' recently announced plans to consider revising the Horizontal Merger Guidelines has led to considerable interest in the UPP test and the possibility that it might supplant the traditional structural presumption.[5]

Two questions are raised by the potential replacement of the structural presumption with the UPP test. First, what are the characteristics of mergers that do not create a structural presumption but are likely to create a UPP presumption, and vice versa? Second, overall, will the UPP alternative to the structural approach lead to fewer or more instances in which the agencies will subject mergers to additional scrutiny on unilateral effects grounds?

Background of the UPP Test

To answer these questions, it may be helpful to review how the UPP test works in practice and how it differs from structural analysis.[6] A key determinant of the competitive constraint imposed by one differentiated product on another is the extent to which the products are "close substitutes" of one another in the chain of buyer substitution. Closeness of substitution may not be reflected accurately by market shares. For example, a large proportion of the buyers of one product might consider another specific product to be their second choice even though the collective share of the two products in a defined relevant market is small. A merger between two such products, by eliminating the local competitive constraint between them, might nevertheless result in higher prices. The UPP test avoids this potential problem with the structural approach because it directly evaluates the potential for a merger's unilateral price effects by appealing to the theory of how a merger affects the merging firms' post-merger pricing incentives.

A related practical problem with the structural approach is the decision regarding where to draw the boundaries of the relevant market, i.e., which products to include in the market definition. In both Whole Foods-Wild Oats and Oracle-PeopleSoft—two relatively recent mergers in which the agencies sought enforcement action—the district courts held that the relevant market definitions proposed by the agencies were "too narrow" because they did not include other products that, in the courts' judgment, were "reasonably interchangeable" with the merging firms' products.[7] The UPP test can avoid such controversies regarding which products to include in the relevant market and which ones to leave out.

UPP derives from the basic economic theory of unilateral effects. Under certain assumptions, the UPP test measures the competitive constraints that are eliminated by a merger. Following a merger, each merging firm has an incentive to raise its price because it stands to recapture through its merging partner's product some of the sales that it loses due to the price increase. The value of the recaptured sales is measured by the appropriate diversion ratio between the merging firms' products multipled by the dollar value of the variable margin earned on the merging partner's product. The more closely substitutable are the merging firms' products, the higher is the diversion ratio between them. The higher is the variable margin earned on the merging partner's product, the greater

Gopal Das Varma is a Principal in the Washington, DC office of Charles River Associates. The views expressed in this article are the author's personal opinions and do not necessarily represent the views of Charles River Associates or its other consultants. *The author would like to thank, without implicating, Martino DeStefano, Andrew Dick, and Serge Moresi for helpful comments on an earlier draft.*

Relative to the structural approach, the explicit consideration of unilateral pricing incentives and the incorporation of efficiency considerations, albeit on a standard deduction basis, gives the UPP test a flavor of merger simulation.

is the amount of profit recaptured as a result of diversion. The pre-merger competitive constraint on a merging firm's product that is eliminated by the merger is thus measured by the (dollar) value of diversion of demand ("diversion") from that product to the merging partner's product.

All things equal, the elimination of this competitive constraint by the merger exerts upward pressure on the prices of the merging firms' products. At the same time, if the merger results in some efficiencies—in the form of a reduction in the marginal cost of production and sales—then such efficiencies can reduce or even offset the upward pricing pressure induced by the merger. In its most basic form, the UPP test measures the net effect of these two opposing forces. For purposes of implementing the UPP test, Farrell and Shapiro propose the use of a standard presumptive efficiency credit ("standard deduction"), say, a 10 percent reduction in the pre-merger marginal cost of each merging firm's product.[8]

Relative to the structural approach, the explicit consideration of unilateral pricing incentives and the incorporation of efficiency considerations, albeit on a standard deduction basis, gives the UPP test a flavor of merger simulation. At the same time, by framing the inquiry as whether or not there will be upward pricing pressure rather than a prediction of the post-merger price level, the UPP test avoids having to make any assumptions about the shape of demand—an assumption that is typically unavoidable in merger simulation.

Market Definition and Closeness of Substitutes

The Guidelines Approach to Market Definition. The Guidelines define a relevant market for a product to be the smallest collection of products (including the product in question) such that a hypothetical monopolist owning the products finds it profitable to impose a small but significant and non-transitory increase in price (SSNIP). To define a relevant market consistent with the Guidelines' approach, one needs to start with each of the merging firm's products and determine whether a hypothetical monopolist owning that product could profitably impose a SSNIP. If not, then one needs to add to that product its next best substitute and repeat the hypothetical monopolist test. The next best substitute is defined as the product that accounts for the largest diversion in response to a SSNIP. The process is repeated until the collection of products under consideration becomes such that the hypothetical monopolist finds it profitable to impose a SSNIP.[9]

In a differentiated products industry, combining the "smallest market" criterion with a small SSNIP and the further requirement that products be added in the order of next best substitutes can lead to defining very narrow markets containing only the closest or very close substitutes of a product.[10] When the merging firms' products are the closest or very close substitutes of one another, they are, thus, likely to belong to a narrow relevant market which creates a structural presumption. On the other hand, when the merging firms' products are not among the closest substitutes for one another, the Guidelines' approach may put the products into separate relevant markets, in which case there is no structural presumption.[11]

In contrast, for a given standard efficiency credit, the UPP test determines a threshold level of diversion above which a presumption of unilateral harm is created. For example, suppose the merging firms' products each have a pre-merger price of $15 and a pre-merger marginal cost of $10. Then, for a presumptive efficiency credit of 10 percent of pre-merger marginal costs, a diversion ratio between the merging firms' products of greater than 20 percent creates a presumption of UPP.[12] It is quite possible for the diversion ratio between the merging firms' products to exceed 20 percent without one of them being the closest or second closest substitute of the other.[13] The overall implication is that, given the variable margins, and depending on the amount of the standard efficiency credit, a merger may create a UPP presumption so long as the merging firms' products are somewhat substitutable whereas, as discussed earlier, a merger is unlikely to create a structural presumption unless the merging firms' products are the closest or very close substitutes of one another.[14] In this sense, relative to the Guidelines' approach to market definition, the UPP test when undertaken with a 10 percent standard efficiency credit (a figure used by Farrell and Shapiro to illustrate the test) appears to cast a wider net by lowering the threshold of diversion between the merging firms' products at which it indicates a presumption of adverse unilateral effects.[15]

Practical Approaches to Market Definition. From a practical standpoint, the analytical approach embodied in the Guidelines' smallest market principle is often not followed. An impediment to implementing the Guidelines' approach frequently encountered in practice is the lack of a quantitative measure of the substitutability between products. It is then difficult to identify the "next best" substitute to add at each stage of the iterative SSNIP test.

Accordingly, the manner in which relevant markets are defined in practice often revolves around identifying a class of products (including those of the merging firms) that have in common certain attributes that are sufficiently valued by their consumers and that cannot be found in products outside of the class. The premise is that this would allow a hypo-

thetical monopolist to impose a SSNIP profitably (although this profitability calculation is rarely carried out in practice). As a result, market definition in practice tends to include all products that share a common set of attributes with those of the merging firms' products, regardless of whether only a subset of those products would have satisfied the SSNIP test. This can lead to broader markets relative to the Guidelines' approach. For example, in the joint venture involving Miller and Coors-Molson, the relevant market for analyzing the transaction might have been taken to be all beer. However, a strict application of the Guidelines' approach may have led to much narrower markets, for example, a market consisting of only Coors Light, Miller Lite, and Bud Light.[16]

To compare the UPP presumption with the structural presumption based on practical approaches to market definition, it is necessary to model how practitioners undertake market definition. One way to do this is to model practitioners as defining the market for a product to include all products that have a certain minimum diversion ratio with respect to that product (based on the idea that products with fewer attributes in common with the product in question would both have a lower diversion ratio and be likely to be dropped from the market definition by the practical approach). Although practitioners often do not actually observe and rely on diversion ratios, this "threshold" approach is a convenient way to model the market definitions that result from the qualitative approach actually used by practitioners.

I consider two possible threshold diversion ratios that might be used to model how practioners approach market definition. First, the threshold might be set at some small value (say, a diversion ratio of at least 5 percent). This would describe practitioners who define the market to include all products that are "reasonably interchangeable" with the product in question. The relevant markets that would be defined in this way would typically be broader than those that result from following the Guidelines' smallest market principle.[17] I will refer to this as a "broad practical market definition."[18]

Second, the threshold diversion ratio might be set to be equal to the diversion ratio between the two merging firms' products.[19] This threshold would describe practitioners who start with both of the merging firms' products and then add other products that seem at least as substitutable as those products based on attributes in common. Applying the second threshold will generally lead to narrower markets than applying the first threshold (albeit broader markets than would be obtained under strict application of the Guidelines' approach).[20] I will refer to this as a "narrow practical market definition."

Simulation Experiments for Broad and Narrow Practical Market Definitions. To assess the implications of supplanting these practical market definition approaches with the UPP test, I compare the incidence of a UPP presumption to the incidence of a structural presumption in a set of hypothetical, albeit plausible, mergers. Towards that end, I simulate 10,000 different "industries" (including diversion ratios, pre-merger variable margins, and shares of sales) and a merger within each industry.[21] I determine whether each merger would create a UPP presumption, a structural presumption, or both presumptions. With respect to the structural presumption, I determine whether such a presumption would arise under either the broad practical market definition (using a diversion ratio threshold of 5 percent) or the narrow practical market definition. For purposes of the UPP test, I use an efficiency deduction of 10 percent of the pre-merger marginal cost—the same figure that is used by Farrell and Shapiro to illustrate the UPP test. I consider the UPP test to result in a presumption as long as the test is failed by at least one of the merging firms' products.

Similarly, in instances in which the relevant market containing one of the merging firms' products is different from the relevant market that contains the other merging firms' product, I consider the structural analysis to result in a presumption provided that at least one of the relevant markets violates the safe harbor thresholds set forth in the Guidelines. For a differentiated products merger, the Guidelines suggest a presumption of unilateral effects if the merger violates the general HHI safe harbor thresholds and the combined market share of the merging products is at least 35 percent.[22] Table 1 reports the percentage of cases in which there are both UPP and structural presumptions, the percentage of cases in which there is only a UPP presumption but not a structural presumption, and the percentage of cases in which there is not a UPP presumption but a structural presumption.

There are several notable results. First, by far the majority of mergers that create a structural presumption also create a UPP presumption. For example, in the case of broad practical market definition, Table 1 shows that 89% (= 31/(4 + 31)) of mergers that create a structural presumption also create a UPP presumption.[23] The intuition for this finding is that, holding fixed the variable margin at issue, the higher the diversion ratio from one merging firm's product to the other, the more likely is the merger to create a UPP presumption. At the same time, a higher diversion ratio from one merging

Table 1: Frequency of UPP and Structural Presumptions for Broad and Narrow Practical Market Definitions

Practical Market Definitions	UPP Presumption Only	Structural Presumption Only	Both UPP and Structural Presumptions	Neither UPP Nor Structural Presumptions
Broad Markets	47%	4%	31%	18%
Narrow Markets	9%	7%	69%	15%

firm's product to the other likely lowers the diversion ratios from the former to the non-merging products (the sum of diversion ratios cannot exceed 100 percent), so that fewer of these non-merging products will satisfy the diversion ratio thresholds for inclusion in the market. With fewer additional products included in the relevant market, the combined market share of the merging firms will be higher, leading to a greater likelihood of a structural presumption.

Second, a sizable proportion of mergers that create a UPP presumption do not create a structural presumption. This is particularly true for the case of broad practical market definition, for which Table 1 shows that a UPP presumption is created in a total of 78% (= 47% + 31%) of all mergers whereas a structural presumption is created in a total of only 35% (= 4% + 31%) of all mergers. Not surprisingly, the difference between the overall frequency of UPP presumption and the overall frequency of structural presumption is less striking for the case of narrow practical market definition.[24] This suggests that, to the extent that the hypothetical data used in this simulation experiment is representative of mergers that are likely to be reviewed by the Agencies, supplanting the structural approach by the UPP test with a 10 percent presumptive efficiency credit may lead to greater instances of merger scrutiny by the agencies and, possibly, greater instances of enforcement challenges in court.[25]

Conclusion

An exploratory simulation exercise demonstrates that some mergers that would not create a structural presumption under the approaches to market definition typically used in practice would likely create a presumption under the UPP test with a 10 percent presumptive efficiency credit. If the UPP test were to replace the structural presumption in the agencies' merger reviews, more mergers would likely be subject to additional scrutiny. The mergers likely to be in this group are those where the merging firms' products constitute first and second choices for a large fraction of their pre-merger buyers but their shares of sales in the industry in question are relatively small and there are no bright line market boundaries to be drawn within the industry. In those cases, the approaches to market definition used in practice are likely to lead to broad markets. Accordingly, the market concentration and market share thresholds for a structural presumption are less likely to be triggered. However, diversion ratios between the merging firms' products will be sufficiently high to result in significant upward pricing pressure and the failure of the UPP test.

If the agencies were to seek to avoid increasing the overall percentage of mergers that should receive a presumption of unilateral effects, the presumptive efficiency credit would have to be increased above the 10 percent figure used by Farrell and Shapiro to illustrate the UPP test. However, in his recent writings, Shapiro has cautioned that, "While some mergers are undoubtedly motivated by the pursuit of genuine efficiencies . . . , 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."[26] This seems to suggest that Shapiro would be unlikely to endorse the use of a high presumptive efficiency credit as part of the UPP test. ■

---

1 Joseph Farrell & Carl Shapiro, Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition (Nov. 25, 2008), *available at* http://faculty.haas.berkeley.edu/Shapiro/.

2 Like the structural presumption, the UPP presumption is intended to be rebuttable. Among other ways, parties to a merger can potentially rebut the UPP presumption by showing that entry by new firms, or product repositioning by non-merging incumbent firms, is sufficiently likely so as to deter the merged firm from undertaking unilateral price increases.

3 The structural presumption in the current Horizontal Merger Guidelines is used by the agencies to preliminarily assess both unilateral and coordinated effects concerns. U.S. Dep't of Justice & Federal Trade Comm'n, Horizontal Merger Guidelines (1992, revised 1997) [hereinafter Guidelines], *available at* http://www.ftc.gov/bc/docs/horizmer.htm. The UPP presumption, on the other hand, is applicable only with respect to unilateral effects. It would appear that, as far as forming any presumption with regard to coordinated effects is concerned, the structural approach would continue to be used by the agencies even if they should adopt the UPP test for purposes of unilateral effects.

4 *See* Jonathan B. Baker & Carl Shapiro, *Detecting and Reversing the Decline in Horizontal Merger Enforcement*, ANTITRUST, Summer 2008, at 29.

5 *See* Press Release, U.S. Dep't of Justice & Fed. Trade Comm'n, Federal Trade Commission and Department of Justice to Hold Workshops Concerning Horizontal Merger Guidelines (Sept. 22, 2009), *available at* http://www.ftc.gov/opa/2009/09/mgr.shtm.

6 Guidelines, *supra* note 3. The safe harbor thresholds which are used to determine whether a merger creates a presumption of competitive effects are denominated in terms of post-merger market concentration and the merger-induced increase in market concentration, each measured in terms of the Herfindahl-Hirshman Index (HHI). In general, a presumption of competitive effects is created (i) if the post-merger HHI is between 1000 and 1800 and the merger-induced increase in HHI is at least 100 or (ii) if the post-merger HHI is above 1800 and the merger-induced increase in HHI is at least 50. *Id.* § 1.51. In the context of unilateral effects in differentiated products markets, the Guidelines state that, "where . . . market concentration data fall outside the safeharbor regions of Section 1.5, *and* the merging firms have a combined market share of at least thirty-five percent, the Agency will presume that a significant share of sales in the market are accounted for by consumers who regard the products of the merging firms as their first and second choices." *Id.* § 2.211 (emphasis added).

7 In the FTC's challenge to the merger between Whole Foods and Wild Oats, the FTC argued that the relevant market is that of "premium natural organic supermarkets" in which Whole Foods and Wild Oats were the only two suppliers in several distinct geographic markets. Complaint at ¶¶ 34, 38–40, FTC v. Whole Foods Market, Inc., No. 07-1021 (D.D.C filed June 6, 2007), *available at* http://www.ftc.gov/os/caselist/0710114/070605complaint.pdf. The district court reached the opinion that to the "marginal customers" of Whole Foods and Wild Oats stores, grocery items sold by many other (traditional) supermarkets are "reasonably interchangeable" with those sold at Whole Foods and Wild Oats and, thus, a relevant market for Whole Foods and Wild Oats should include such traditional supermarkets. FTC v. Whole Foods Market, Inc., 502 F. Supp. 2d 1, 35–36 (D.D.C. 2007). The court of appeals later reversed the district court's opinion (in a 2–1 decision), finding that the lower court had erred in accepting the defendant's expert's opinion that the relevant market should be defined by the purchase behavior of marginal customers. FTC v. Whole Foods Market, Inc., 548 F.3d 1028, 1037 (D.C. Cir. 2008). The majority opinions of the court of appeals instead held the view that "core customers" of Whole Foods and

Wild Oats were unlikely to shift their purchases to other supermarkets in response to a (hypothetical) price increase following the merger, and thus those core customers could likely constitute a relevant market. *Id.* at 1041.

In the DOJ's challenge to the acquisition of PeopleSoft by Oracle, two firms that manufactured enterprise resource planning software (ERP), the DOJ defined the relevant product markets to be high-function financial management software and high-function human resource management software. Complaint at 10, United States v. Oracle Corp., No. 04-0807 (N.D. Cal. filed Feb. 6, 2004), *available at* http://www.usdoj.gov/atr/cases/f202500/202587.pdf. The term "high function" was a reference to products that are purchased by large organizations and that are capable of performing complex tasks and can be used simultaneously by many users. Oracle Complaint at 7. In these relatively narrowly defined markets, the DOJ contended that there were only three incumbent suppliers, the two merging firms and SAP. *Id.* at 10–11. In its Findings of Fact, the district court ruled that, based on the facts in evidence, the court was not convinced that faced with a (hypothetical) price increase following the merger, customers of Oracle and PeopleSoft would not switch to other "mid-market" vendors of ERPs, which included suppliers like Microsoft, AMS, Lawson, as well as outsourcing firms that often provide enterprise resource planning services. *Oracle*, 331 F. Supp. 2d at 1108.

[8] For a detailed discussion of the test and issues that are likely to arise during its implementation, see John Woodbury's review. John R. Woodbury, *Paper Trail: Working Papers and Recent Scholarship*, ANTITRUST SOURCE, Dec. 2008, at 5, http://www.abanet.org/antitrust/at-source/08/12/Dec08-pTrail12-22f.pdf.

[9] Guidelines, *supra* note 3, § 1.1.

[10] In a separate article, Farrell and Shapiro demonstrate and discuss how literally following the Guidelines' approach to market definition can lead to narrow markets. *See* Joseph Farrell & Carl Shapiro, *Improving Critical Loss Analysis*, ANTITRUST SOURCE, Feb. 2008, at 6, http://www.abanet.org/antitrust/at-source/08/02/Feb08-Farrell-Shapiro.pdf.

[11] To take an example, consider four products, *A*, *B*, *C*, and *D*, each of which is produced by one of four different firms, and that have identical pre-merger variable margins of 50%. Suppose, also, that the diversion ratio from *A* to *B* is 35%, the diversion ratio from *A* to *C* is 30% and the diversion ratio from *A* to *D* is 25%. Michael Katz and Carl Shapiro have shown that a hypothetical monopolist owning a group of products finds it profitable to impose a SSNIP on one of those products when the critical loss associated with the SSNIP is less than the aggregate diversion ratio from the product. *See* Michael L. Katz & Carl Shapiro, *Critical Loss: Let's Tell the Whole Story*, ANTITRUST, Spring 2003, at 49. (For the correction to an incorrect formula in the Katz & Shapiro paper, see Øystein Daljord et al., *The SSNIP Test and Market Definition with the Aggregate Diversion Ratio: A Reply to Katz and Shapiro*, 4 J. COMPETITION L. & ECON. 263 (2007).) Using this technique, one can construct a relevant market for product *A* according to the Guidelines' approach. In this example, the next best substitute of product *A* is product *B*. The appropriate critical loss associated with a 5% SSNIP on product *A* is .05/0.50 = 10%. The (aggregate) diversion ratio from *A* to *B* is 35%. Thus, according to the Guidelines' approach, the relevant product market that contains *A* consists of only two products, *A* and *B*.

A merger between the firm that produces *A* and the firm that produces *B* would constitute a merger to monopoly in such a market, thus raising a structural presumption. Product *D*, however, does not belong to the relevant market for product *A*, as constructed according to the Guidelines. Thus, a merger between the firms that produce *A* and *D* would not raise a structural presumption, even though the diversion from *A* to *D* is as much as 25%.

[12] To avert a UPP presumption, the UPP statistic, calculated as the diversion ratio times the variable margin less 10% of the pre-merger variable cost, should be no higher than zero. This "critical" diversion ratio is 20% (calculated as 10% of $10 divided by ($15 – $10)).

[13] In the example introduced in note 11, *supra*, the diversion ratio from product *A* to product *D*, 25%, exceeds the 20% threshold above which a merger between the firms that produce *A* and *D* creates a UPP presumption, even though product D does not belong to the relevant market that contains product *A*.

[14] This finding—that a merger between two products that are somewhat substitutable can lead to a UPP presumption even if the products are not the closest or very close substitutes of one another—is consistent with Shapiro's criticism of the district court's decision in the DOJ's challenge to Oracle's acquisition of PeopleSoft. Shapiro writes, "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.' 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 . . . : unilateral effects will arise so long as some customers 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." Baker & Shapiro, *supra* note 4, at 32.

[15] *See also infra* note 23.

[16] Perhaps in light of this difference between the Guidelines' methodology and the way markets are often defined in practice, the agencies have recently sought public comments on whether the "smallest market principle" should be dropped from market definition in the event the Guidelines were to be revised to more accurately reflect the current practice of merger review. *See* Press Release, *supra* note 5.

[17] Refer to the example *supra* note 11 and consider the construction of a relevant product market containing *A* such that all products that have a diversion ratio from *A* of at least 5% are included in the relevant market. In this example, each of *B*, *C*, and D have a diversion ratio with respect to *A* that exceeds 5%. The relevant market is thus {*A*,*B*,*C*,*D*}, which is broader than the relevant market {*A*,*B*} that resulted from following the Guidelines' approach.

[18] One may envision reasonable variants of this modeling approach. One example would be a relevant market for a product that is defined to include the smallest set of products that together account for, say, 95% aggregate diversion from the product in question. Another example would be a relevant market for a product that identifies natural breaks in the distribution of diversion ratios from the product in question to other products, and includes only those products whose diversion ratios from the product in question exceed a natural break point.

[19] Refer, again, to the example in note 11, *supra*, and consider a merger between the firm that produces product *A* and the firm that produces product *C*. The diversion ratio from *A* to *C* is 30%. There is one other product, *B*, whose diversion ratio from *A* exceeds 30%. Thus, the market definition methodology under discussion implies that the relevant market for product *A* is {*A*,*B*,*C*}.

[20] Refer to note 19, *supra*, and note that the relevant market in this example {*A*,*B*,*C*} is broader than the relevant market {*A*,*B*} that resulted from following the Guidelines' approach.

[21] Each hypothetical data point is calculated as the Bertrand-Nash equilibrium outcome that results from a parameterized linear differentiated product demand system and a constant marginal cost for each product. The linear demand systems are generated by randomly drawing the values of its parameters. I adjust the domain of distribution of the random variables which parameterize the demand system, together with the number of products whose demand is explicitly modeled, with the goal of generating pre-merger equilibrium outcomes that are characterized by non-trivial diversion ratios between different product pairs, and non-trivial variable margins for different products. One implication of this is that the proportion of mergers in the data for which either type of presumption arises may be higher than in the real world, where many mergers fall well below the thresholds that draw attention from the agencies. The analysis in this article may be viewed as focused on the type of mergers that are likely to get a close look from the agencies.

In the data so generated, diversion ratios across different product pairs can range between 3% and 25%, pre-merger variable margins of individual products can range between 34% and 69%, and shares of sales of individual products can range between 5% and 31%. Complete details about how the data was generated, and MATLAB codes that were used to find the incidence of UPP and structural presumptions in the data, are available from the author on request.

[22] *See* Guidelines, *supra* note 3.

[23] When the same hypothetical merger data is used to compare the UPP test (with a 10% standard efficiency credit) to the Guidelines' approach to market definition, 27% of all mergers in the data create both a UPP and a structural presumption, 53% of all mergers create only a UPP presumption but not a structural presumption, 20% of all mergers create neither a structural presumption nor a UPP presumption, and not a single merger creates only a structural presumption but not a UPP presumption. Furthermore, I find that for this set of hypothetical mergers, a presumptive efficiency credit of approximately 22% of pre-merger marginal costs is needed to make the overall incidence of UPP presumptions be equal to the overall incidence of structural presumptions.

[24] Recall from note 23, *supra*, that for the Guidelines' approach to market definition, there were no instances of structural presumption that also did not create a UPP presumption. That was because the Guidelines' approach often led to markets that did not even include the two merging firms' products (i.e., no overlap). The narrow practical market definition that I have introduced in this article includes, by design, both of the merging firms' products (i.e., overlap for every merger). This increase in the incidence of overlap accounts for the finding that even though the narrow market definition considered in this article typically leads to markets that are broader than Guidelines' markets, there is nevertheless an increase in the overall proportion of mergers that create a structural presumption, as well as the occurrence of a small proportion of mergers which create a structural presumption but not a UPP presumption.

[25] Needless to say, I implicitly assume that the types of mergers that are likely to be initiated in the future will not be significantly affected by the agencies' decision of whether to continue to use the structural screen or to use the recently proposed UPP test for purposes of assessing unilateral effects.

[26] Baker & Shapiro, *supra* note 4, at 33 (emphasis added).

Janet D. Steiger Fellowship Project Enters 6th Year

THE JANET D. STEIGER FELLOWSHIP PROJECT provides law students the extraordinary opportunity to work in the consumer protection and antitrust departments of state and territorial Offices of Attorneys General throughout the United States, as well as the Georgia Governor's Office of Consumer Affairs. The eight-week paid Fellowships were initiated in 2004 by the ABA Section of Antitrust Law, in cooperation with the National Association of Attorneys General (NAAG), as a consumer protection outreach initiative to introduce law students to the rewards of legal careers in public service.

The first and second year law students who have served as Steiger Fellows have characterized their experiences as truly rewarding, often well beyond their expectations. A number of students have said that for the first time they are considering law careers in public service, and several have already entered public service upon graduation.

Each of the highly motivated Steiger Fellows provides tangible, meaningful assistance to states and territories that are in substantial need of additional resources to fulfill their consumer protection mission. Attorneys General Offices that have hosted Steiger Fellows in the past have characterized the Fellows' work as exemplary, and have often described the students as some of the most talented interns the offices have ever attracted.

The Council of the Antitrust Section recently approved funding for states to participate in the 2010 Steiger Fellowship Project. This Project continues to be a tribute to the memory of the late Janet D. Steiger, one of America's great public servants who, during her remarkable tenure as FTC Chairman, dramatically improved cooperation, communication, and coordination between state and federal consumer protection and antitrust enforcement agencies.

The states that will receive Steiger Fellows during the summer of 2010 are:

- Alaska
- Arkansas
- California
- Delaware
- Florida
- Georgia
- Iowa
- Kansas
- Maryland
- Montana
- Nevada
- New Hampshire
- New Mexico
- New York
- Ohio
- Pennsylvania
- Texas
- Virginia
- Washington
- West Virginia

To obtain student applications, visit:
www.abanet/org/antitrust
Applications must be received by February 5, 2010.