Comments of James F. Rill, Christopher J. MacAvoy, M. J. Moltenbrey, Marc G. Schildkraut, and John M. Taladay (of Howrey LLP) and Dr. Oliver Grawe (of CapAnalysis Group, LLC) on Horizontal Merger Guidelines

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These initial comments[1] are submitted in response to the questions posed by the U.S. Department of Justice and the Federal Trade Commission ("Agencies") in connection with their upcoming workshops to explore the possibility of revising the *Horizontal Merger Guidelines* ("*Guidelines*").[2] As the 1992 *Guidelines* acknowledge, review from time to time is desirable to "clarify aspects of existing policy." Revision is also appropriate to accommodate learning in economics, enforcement, and case law over time. We applaud the Agencies for undertaking this project and appreciate the opportunity to participate.

These comments focus on issues we believe are most salient. We do not wish to imply that the questions that are not discussed in this paper are unimportant. We hope to address additional issues as this project proceeds.

I. Summary of Comments

Wholesale revisions to the *Guideline*s are neither necessary nor desirable. The *Guidelines* are admirably serving their intended purposes. In 2005 comments before the Antitrust Modernization Commission, two of our colleagues observed: "[t]he *Merger Guidelines* provide a sound analytical path for merger enforcement and, as such, have been widely recognized and accepted."[3] Four years later, this remains our view.

We concur with the consensus of participants in the Agencies' 2004 Merger Enforcement Workshop that "the analytical framework set forth by the *Guidelines* is effective in yielding the right results in individual cases and in providing advice to parties considering a merger."[4] And we agree, because it is consistent with our experience, that "the *Guidelines* analytic framework

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2 U.S. DEP'T OF JUSTICE AND FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES (1992) (with Apr. 8, 1997 revisions to Section 4 on efficiencies), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶13,104 [hereinafter GUIDELINES].

3 James F. Rill and Christopher J. MacAvoy, Written Statement Concerning Antitrust Merger Enforcement, Before the Antitrust Modernization Comm'n (Oct. 31, 2005), at 1.

4 U.S. DEP'T OF JUSTICE AND FED. TRADE COMM'N, COMMENTARY ON THE HORIZONTAL MERGER GUIDELINES (2006) (hereinafter COMMENTARY) at v, *available at* http://www.justice.gov/atr/public/guidelines/215247.pdf.

has proved both robust and sufficiently flexible to allow the Agencies properly to account for the particular facts presented in each merger investigation."[5]

Nevertheless, the *Guidelines* should be revised in limited respects. They should be revised where they (1) could be made clearer, (2) do not accurately describe the Agencies' analysis, or (3) are incomplete in that they omit, or do not adequately describe or integrate into the analysis, a significant aspect of the inquiry.

More specifically, our comments are:

- The five-part analysis of the 1992 *Guidelines* should be retained, but with a stronger admonition that the *Guidelines* describe an integrated (or "holistic") analysis rather than, as some have misperceived, a rigid sequence of steps.

- The relevant product market definition protocol is essential and should not be scrapped or weakened. Direct measurement of competitive effects, through natural experiments and econometric techniques, can inform the analysis in appropriate circumstances, and those circumstances should be identified and properly delimited in the *Guidelines*. But the state of the art is too imperfect to justify jettisoning or weakening market definition. Moreover, in those cases where reliable direct evidence is present, the magnitude of the effects must comport with the *Guidelines*' five percent SSNIP test in order to justify intervention. A "zero tolerance for price increases" policy, untethered to market definition, would be inappropriate.

- Market definition creates a risk of, but does not compel, over-reliance on concentration measures. This can be mitigated by less drastic means than ending or downgrading its role. "[C]lear admonitions against over-reliance on concentration measures should guide the enforcement agencies and be heard by the courts."[6] The HHI ranges in the *Guidelines* should be adjusted upward to reflect actual Agency practice. To the extent the Agencies believe there is a basis for applying different HHI thresholds to particular industries, such as petroleum and grocery retailing, this should be explicitly discussed in the *Guidelines*, along with the justification. Otherwise, the *Guidelines* should state that the same HHI thresholds apply to all industries.

- Departure from the market definition paradigm may be appropriate in rare cases where there is reliable direct evidence of anticompetitive effects. The types of empirical evidence that might justify eschewing market

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5 *Id.*

6 Robert A. Willig, Testimony on Assessment of U.S. Merger Enforcement Policy, Before the Antitrust Modernization Comm'n (Nov. 17, 2005).

definition should be identified in the *Guidelines*. At the same time, the *Guidelines* should expressly reject relying on simulations alone, and should make clear that simulations are appropriate only to corroborate (or question) direct evidence.

- The unilateral effects discussion should be clarified. Among other clarifications, the requirement of a next-best substitute should be made more explicit. The prospect of repositioning has too often been given short shrift by the Agencies in their merger analyses. The potential significance of repositioning, based on objective analysis rather than "opinion polls" of market participants, should be given greater emphasis in the *Guidelines*.

- The *Guidelines*' discussion of HHI presumptions has too often been misinterpreted as a legal rule. Language that might be read as endorsing a market share test – a "ceiling" beyond which a merger is unlawful – should be removed. More emphasis should be placed on empirical analysis, including company documents and natural experiments where available.

- The *Guidelines*' discussion of the price discrimination test to delineate relevant product markets should be clarified.

- Our final comments underscore the difficulties that would be encountered if the Agencies were to attempt to address non-price competition and innovation in the *Guidelines* as some have proposed.

II. The Guidelines Are Fulfilling Their Intended Purposes

The upcoming workshops should reconfirm that the central goal of the *Guidelines* is to "describe the analytical framework and specific standards normally used by the Agency in analyzing mergers," in order to "reduce the uncertainty associated with enforcement of the antitrust laws in this area."[7] The *Guidelines* have "the dual purposes of leading to appropriate enforcement decisions on proposed horizontal mergers, and providing the antitrust bar and the business community with reasonably clear guidance from which to assess the antitrust enforcement risks of proposed transactions."[8] The *Guidelines* do not (and should not) purport to be a body of rules, such that one could meaningfully refer to a *"Guidelines* violation." Rather, they illuminate the standard that is the ultimate object of the inquiry – whether a transaction may substantially lessen competition – and provide a framework for answering that question.[9]

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7 GUIDELINES, §0.

8 *Id.*

9 One commentator described the distinction as follows: "A rule is a legal mandate that entails an advance determination of what conduct is permissible and leaves only factual issues for the adjudicator (e.g., 'Do not drive faster than 65 m.p.h.'). A standard, by contrast, is a mandate that leaves some judgment about what conduct is permissible (e.g., 'Do not drive at an excessive speed.'). Rules provide superior guidance to the governed and the

There is broad consensus that these should remain the *Guidelines'* purposes. Some commentators, however, appear to envision different or additional purposes. It has been asserted, for example, that the *Guidelines* should be revised to incorporate, in a single document, all of the Agencies' techniques and analytical "nuances," on the grounds that "the U.S. agencies should communicate and apply state-of-the-art merger analysis if they want to remain leaders in the antitrust enforcement community."[10] It has been suggested that mere "tweaking" of the *Guidelines*, or continued explication via policy statements, speeches, and commentary, is unsatisfactory.[11] Others may wish to reopen to *Guidelines* to remove, or at least substantially downgrade, market definition and concentration and to sanction, if not expressly endorse, particular econometric techniques for showing direct harm to competition, such as the Farrell-Shapiro "Upward Pricing Pressure" (UPP) test.[12]

We respectfully disagree with such suggestions. It would be impractical for the Agencies to attempt to reach consensus on the equivalent of an encyclopedia of merger analysis and enforcement, and any such effort would consume enormous resources. Moreover, the work of maintaining the *Guidelines* as a comprehensive repository of learning from the most recent cases and the latest ("cutting edge") econometric tools would be never-ending. Ultimately, an effort to make the *Guidelines* a comprehensive codification of merger law and economics would likely undermine their utility and influence in the U.S. and around the world.

The goals and nature of the *Guidelines* have remained consistent through previous updates and revisions. When the 1992 *Merger Guidelines* were issued, for example, then-Assistant Attorney General for Antitrust Jim Rill said that "the 1984 *Merger Guidelines* present a sound framework for antitrust analysis, but one that has been improved with the benefit of experience."[13] He also emphasized that the new *Guidelines*, like the 1984 version, were intended to provide "context and reference points" to the business community, the Agencies, and the courts, by articulating a framework for addressing, in a consistent manner, factors such as entry and efficiencies in relation to the statutory objective of preventing mergers, the effect of

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adjudicator, but they can misfire if over- or under-inclusive, and they therefore require ex ante specification of all factors that might be relevant to a sound decision. Standards provide less guidance, but they are more likely to generate a correct adjudication in any particular case, for the adjudicator is free to account for unforeseen, case-specific quirks." Thom Lambert, "*Standardizing" the Horizontal Merger Guidelines*, Truth on the Market Merger Guidelines Symposium (Oct. 27, 2009), *available at* http://www.truthonthemarket.com/category/merger-guidelines-symposium.

10 Ilene K. Gotts, *Through the Looking Glass: Some Ruminations of How the Current U.S. Merger Enforcement Guidelines Could be Improved*, Presented at the ABA SEC. OF ANTITRUST LAW Spring Meeting (Apr. 2009), at 1.

11 *Id.* at 17-18.

12 *See* Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition* (Dec. 2008), *available at* http://faculty.haas.berkeley.edu/shapiro/alternative.pdf. In fairness, neither Farrell nor Shapiro, in their current positions as Director of the FTC's Bureau of Economics and Deputy Assistant Attorney General for Economics, has stated that this is or should be a purpose of the *Guidelines* review project.

13 Interview with AAG James F. Rill, 61 Antitrust L.J. 229, 231 (1992).

which may be substantially to lessen competition.[14] These goals are ambitious enough and should not be expanded.

III. The Five-Part Analysis Should Be Retained

A common criticism of the *Guidelines* is that they are susceptible to being misinterpreted as prescribing a linear approach under which market definition and static market concentration are too often outcome-determinative. The extent of this misimpression may be exaggerated, and in any case the appropriate remedy is to clarify that the analysis is an integrated one and that the order in which the issues are taken up may not be important. We agree with what the Agencies said in this regard in their *Commentary on the Merger Guidelines*:

> The Guidelines' five-part organizational structure has become deeply embedded in mainstream merger analysis . . . . Each of the Guidelines' sections identifies a distinct analytical element that the Agencies apply in an integrated approach to merger review. The ordering of these elements in the Guidelines, however, is not itself analytically significant, because the Agencies do not apply the Guidelines as a linear, step-by-step progression that invariably starts with market definition and ends with efficiencies or failing assets.[15]

We favor adding clarifying language along these lines to the *Guidelines*. At the same time, we strongly caution against over-compensating changes that would have the effect (intentional or not) of implying that particular parts of the analysis – principally market definition – routinely can be dispensed with. As then AAG-Jim Rill said on the day the 1992 *Guidelines* were issued: "The Guidelines' framework consists of five steps. Each is necessary and together they are sufficient to determine whether a merger is likely to create or enhance market power."[16]

IV. Market Definition Should Be Retained

Assistant Attorney General Varney has said she does not anticipate departing from the "basic elements" of current *Guidelines*, including "the use of the hypothetical-monopolist test to define relevant markets."[17] We, too, believe it would be a mistake to eliminate or weaken the role of market definition. We acknowledge, of course, that the *Guidelines*' approach to product market definition is a proxy for direct measurement of the competitive proximity of the parties and the business of other candidates for inclusion in measurement of competitive effect. Some Agency and private sector economists have urged that direct measurement of competitive effects

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14 *Id.* at 232.

15 COMMENTARY, at 2.

16 Interview with AAG James F. Rill, 61 Antitrust L.J. 229, 232 (1992).

17 Christine A. Varney, "Merger Guidelines Workshop," Remarks Before Third Annual Georgetown Law Global Antitrust Enforcement Symposium," (Sept. 22, 2009), at 5.

by econometric techniques is a superior approach.[18] This argument has theoretical merit, but there are, at present, serious impediments to practical implementation; chiefly, a lack of sufficient confidence in the methodology or reliability of the underlying data.[19] Nor is there sufficient clarity to achieve judicial understanding of the approach, particularly as it embraces simulation. Thus, abandonment of the product market approach of the *Guidelines* is unwarranted.

In this we agree with Robert Willig, who advised the Antitrust Modernization Commission that "[i]mportant discipline in merger analysis is fostered by the insistence that intervention be founded on the identification of relevant markets in which competition is predicted to be significantly weakened by the merger."[20] As Willig pointed out, "the requirement of market definition creates the imperative for consideration of sources of competition beyond the parties' own products, along with the need to generate some calibration of the strength of that additional competition."[21] Market definition also encourages consistency across industries in merger enforcement: "requiring market definition via the conceptual approach of the *Guidelines* . . . calibrates the extent of relevant markets in a fashion that is consistent across cases, and thereby also consistently calibrates the measures of concentration in relevant markets in different cases."[22]

Simulation techniques can be employed, nevertheless, to test the results of analysis based on empirical evidence. The *Swedish Match* decision is instructive. There, the district court lacked sufficient confidence in the econometric simulations submitted by the parties to rest its relevant market conclusion on this evidence alone. Instead, the court looked to and found persuasive customer testimony, the parties' internal documents, outside research studies, relative price movements, and competitor testimony.[23]

Econometric simulation can be effective to test the conclusion reached by empirical evidence, and many commentators who are generally supportive of this technique endorse such deployment. Even economists who are enthusiastic about simulation analysis have stressed the

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18 *See* Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition* (Dec. 2008); Gregory J. Werden & Luke M. Froeb, *Simulation as an Alternative to Structural Merger Policy in Differentiated Products Industries,* in THE ECONOMICS OF THE ANTITRUST PROCESS: TOPICS IN REGULATORY ECONOMICS (Malcolm Coate & Andrew Kleit eds., 1996).

19 *See* Ken Heyer, *A World of Uncertainty: Economics and the Globalization of Antitrust,* 72 ANTITRUST L.J. 375, 385 n.11 (2005) ("To incorporate *perfectly* into one's analysis uncertain costs and benefits, one would require an extraordinary amount of information on the distribution of possible outcomes. Complete information of this sort will never be available in an actual investigation. Nevertheless, the alternative of using an entirely wrong framework is likely to be worse than doing the best one can with imperfect information. Indeed, this scenario appears eerily comparable to the old joke about the man who is looking for a lost item under a street lamp, not because the item was lost there, but rather because the light is better.").

20 Robert A. Willig, Statement on Assessment of U.S. Merger Enforcement Policy, Before the Antitrust Modernization Commission (Nov. 17, 2005), at 3.

21 *Id.* at 5.

22 *Id.* at 5-6.

23 *United States v. Swedish Match,* 131 F. Supp. 2d 151, 162-65 (D.D.C. 2001).

evolutionary nature of the analytics, the need for further development, and the desirability of the agencies and the parties cooperating in furtherance of refinement and clarification.[24] The product market definition provision has also been criticized for leading to a first-cut rigidity of analysis and possibly to both error and an excessive weighting of market concentration.[25] Analysis under the *Merger Guidelines,* however, is not a rote march through a checklist, but a continuing process in which each area of analysis can be informed by another and modified as appropriate. Moreover, even where product market lines are drawn, the competitive effect of products outside the market can be taken into account to weaken further the concentration presumption.[26]

V. The HHI Presumptions Should Be Deleted, And The HHI Thresholds Should Be Modified To Reflect Agency Practice

The 1992 *Merger Guidelines* retained the HHI metrics developed in 1982, but substituted the element of "presumption" at the highly concentrated level for the previous indication of likelihood of government challenge. This change abandoned the litigation focus of prior versions and, more importantly, made clear that the higher post-merger concentration level did not suggest a "guideline violation" but rather dictated the need for further analysis of competitive effects, committed entry, and efficiency. In short, the presumption was designed to stimulate the further analysis, not supplant it.[27]

Nevertheless, while most subsequent court decisions, taking into account the *Merger Guidelines,* have acknowledged the limited weight to be accorded concentration and grounded analysis on other guidelines factors, particularly competitive effects and entry,[28] it is widely

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24 *See, e.g.,* statements of Robert A. Willig and Dennis Carlton, DOJ/FTC Merger Workshop, 123-125, 134-135 (Feb. 19, 2004); Roundtable Discussion: *Unilateral Effects Analysis After Oracle,* 19 ANTITRUST 8, 12 (Spring 2005) ("Simulation is a potentially useful tool, but it is just one element of the information set that we rely upon when deciding whether or not to recommend a case," Michael Vita.); 19 ANTITRUST 8, 13 ("Properly modified simulation models can deal very nicely with bargaining, negotiations and price discrimination, but testing the robustness and reliability of these models is complex . . ." Carl Shapiro.); Mary Coleman, *Key Issues in Proving Unilateral Effects After Oracle,* 19 ANTITRUST 26, 28 (Spring 2005) ("Simulation models are best considered as a potential means of summarizing the available empirical evidence.").

25 *E.g.,* William Blumenthal, *Why Bother?: Or Market Definitions Under the Merger Guidelines,* Statement before the DoJ/FTC Merger Workshop (Feb. 17, 2004), available at http://www.ftc.gov/bc/mergerenforce/presentations/040217blumenthal.pdf.

26 *See, e.g.,* the Statement of the FTC in *Royal Caribbean Cruises, Ltd./ P&O Princess Cruises plc and Carnival Corp./P&O Princess Cruises plc*, File No. 021 0041 (Oct. 4, 2002), *available at* http://www.ftc.gov/os/2002/10/cruisestatement.htm.

27 To this effect, the 1992 *Merger Guidelines* were anticipated, and to some extent incentivized, by the *Baker Hughes* decision, which approved a merger on the basis of competitive effects and entry analysis, notwithstanding very high concentration based on current sales. *United States v. Baker Hughes, Inc.,* 908 F.2d 981 (D.C. Cir. 1990). Prior to *Baker Hughes,* the Division placed extraordinary weight on market concentration in litigation, focusing much less on other factors evidencing competition.

28 *FTC v. Arch Coal, Inc.*, 329 F. Supp. 2d 109, 145-46 (D.D.C. 2004); *United States v. Oracle Corp.*, 331 F. Supp. 2d 1098, 1110-12 (N.D. Cal. 2004).

agreed that the "presumption" language in the current *Guidelines* is too amenable to misinterpretation and misapplication, and should be replaced by a more explicit statement to the effect that concentration is only one facet in the analysis, not its end.

Published Agency data makes clear that the HHI ranges in the current *Guidelines* do not comport with actual Agency practice.[29] The HHI ranges should be revised upward to reflect what the Agencies believe and do in practice.

Practitioners have long observed, and the Agencies' published enforcement data bear out, that in certain industries the Agencies apply lower (i.e., more rigorous) HHI thresholds than those appearing in the *Guidelines*, notably in petroleum, grocery retailing, and pharmaceuticals. The rationale for this has never been satisfactorily explained, nor are we aware of any empirical support for the practice. To the extent the Agencies believe particular industries deserve different HHI thresholds, they should explain why in the *Guidelines*. Otherwise, the *Guidelines* should state that the same HHI thresholds apply to all industries.

VI. The SSNIP Test Should Be Retained But Also Clarified

Market definition requires some form of calibration. The *Merger Guidelines* use the SSNIP test to perform this calibration, typically hypothesizing a price increase of five percent. But the *Guidelines* are flexible, allowing the Agencies to adjust the price test. The basis of such adjustments are very vague, however. As explained below, we recommend that the Agencies eliminate the vague guidance on adjusting the SSNIP test. If the Agencies believe that there are adjustments that ought to be made, the *Guidelines* should contain explicit language indicating how the adjustments should be made. Despite the lack of guidance, occasionally, certainly not systematically, adjustments have been made to the test to reflect low margins in a particular industry. We will argue that this adjustment is inappropriate.

The market definition paradigm was an important conceptual advance in the 1982 Department of Justice *Merger Guidelines*.[30] To define a market, the Department sought to identify a group of products (a geographic area) such that a hypothetical firm that was the only present and future seller of those products (in a geographic area) could raise price profitably.[31] This established the pivotal role of price increases in the analysis of markets.

To be operational, the Department's standard required a specific price increase. "As a first approximation," the Department hypothesized a price increase of five percent.[32] The Department said it would use the five-percent test for product and geographic market definitions

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29 *See* Horizontal Merger Investigation Data, Fiscal Years 1996-2007 at Table 3.1 (2004), *available at* http://www.ftc.gov/os/2004/08/040831horizontalmergersdata96-03.pdf.

30 *See*, *e.g.,* Levy, *Measuring The Price Increase in Merger Cases: Five Percent of What?* 2 ATRS Rep. 4 (Spring 1989).

31 U.S. DEP'T OF JUSTICE, MERGER GUIDELINES, 47 Fed. Reg. 28,493 (1982), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶13, 102 (hereinafter 1982 GUIDELINES).

32 *Id.*

and to assess the likelihood of entry. The 1982 *Guidelines* noted, however, "the purpose of hypothesizing a price increase is to interject a dynamic element in the analysis" and suggested (without further guidance) adjusting the percentage price increase to account for profit differences among industries.[33]

In 1984, the Division modified its market-definition test. First, to impart more flexibility to its analysis, the Division deemphasized the five percent standard. The Division said it would ask whether a hypothetical monopolist could profitably impose a "small but significant and nontransitory" price increase. The Division added that it would in most contexts use a price increase of five percent, lasting one year. "However, what constitutes a 'small but significant and nontransitory' increase in price will depend on the nature of the industry, and the Division at times may use a price increase that is larger or smaller than five percent."[34] The Division and the FTC adopted the same language in the 1992 *Merger Guidelines*.[35]

The Division said it would start the test using whatever the industry considers to be the price at the stage of production or distribution under investigation.[36] In a retail merger, that meant hypothesizing an increase in the retail price. In an oil pipeline merger, that meant starting with the pipeline tariff.[37]

To adjust the price test for industry conditions, it would be useful to follow the *Guidelines* methodology. Unfortunately, the *Guidelines* offer no general principles on how to adjust. Indeed, between 1982 and 1984, the *Guidelines* even dropped the hint that profitability would be used as one criterion to adjust SSNIP test. Moreover, the *Guidelines* neither offer a rationale for starting with five percent nor for using the prevailing price. As one of the principal authors of the *Guidelines* lamented: "We have not been told very much about how to decide *when* five percent is the wrong number; or, when it is the wrong number, how to decide *what* different number to use. Because of the importance of market definition to the whole analytical scheme of the *Merger Guidelines*, this is a serious problem."[38]

Both the adherence to five percent and the level of the industry raise the specter of differential enforcement among industries. We will use the oil industry as an example. Different firms produce, transport and refine crude oil. They then transport and sell the refined products at the wholesale and retail level. Suppose that two local crude oil producers could, if they merged, raise price by six cents per gallon, at most. Suppose that the two producers are the only local producers so that if we have a well-defined market, we would have a merger to monopoly and could readily implement the hypothetical monopolist test. Under the five-percent test, we would have a geographic market—assuming crude oil prices of about $1.00 cents per gallon—and the

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33 *Id.* at note 10.

34 U.S. DEP'T OF JUSTICE, MERGER GUIDELINES, 49 Fed. Reg. 26,823 (1984), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶13,103, at 20,556 (hereinafter 1984 GUIDELINES).

35 GUIDELINES, §1.11.

36 *Id.* §2.11 at 20,557.

37 *Id.* at note 6.

38 Jonathan Baker, *The 1984 Justice Department Guidelines,* 53 Antitrust L. J. 327, 328 (1984).

FTC might challenge a merger between two crude oil producers. Given inelastic demand, we would expect that the industry would pass through the six cent price increase and consumers in the area (assuming that the downstream markets are also local) would pay about six cents more for gasoline.

Suppose we reach the same conclusion about a merger between the only two local chains of gasoline retailers: after the merger, the retailers could raise prices six cents per gallon in a local geographic area, but no more. Under the five-percent test, the FTC would reject retail gasoline as a market─assuming a price of about $2.00 per gallon─and the FTC would not challenge the merger because there would be no geographic market. Yet, consumers would pay six cents more per gallon for gasoline.

To be sure, the *Guidelines* say that the "'small but significant and nontransitory" increase in price is employed solely as a methodological tool for the analysis of mergers: it is not a tolerance level for price increases."[39] But the SSNIP test is a tolerance level for a price increase if markets are defined before competitive effects are analyzed. And, if on the other hand, competitive effects trump market definitions, then the market definition process set forth in the *Guidelines* is truly illusory.

This produces a discomforting result. Based on the prescribed analysis, we conclude that we have a market upstream but not downstream. If the two mergers cover the same geographic region, they produce almost the same competitive harm. But a rigid analysis suggests challenging the upstream merger and approving the downstream merger. Moreover, the downstream merger has a much greater effect on profits. The six additional cents would have a noticeable effect on crude oil producer margins. For retailers, six additional cents is a bonanza.

Next consider a merger between two crude oil pipelines. Suppose we conclude that a hypothetical monopolist could raise prices one-half cent per gallon. Because the transportation charge in some pipeline markets is only a penny or two, this price hike could represent a 50% increase in price. The *Guidelines* would suggest a very strong market definition.[40] The maximum harm to consumers at retail is one-half cent per gallon. Yet, if we adhered to the five percent standard, we would challenge the pipeline merger and not a retail merger that causes twelve times the harm.

This is not only a result of the level in the supply chain; it is also the result of the way oil pipelines do business. Most pipelines do not buy and sell crude oil; they charge for transportation. If they did buy and sell, the price might be $1.01 per gallon rather than one cent. And there would be neither a market nor a risk of challenge under the five percent methodology. Indeed, there are a few pipelines that do buy crude oil at one end of the line and sell the crude oil at the other end of the line. They do this to avoid common carrier classification. The additional bonus of eschewing common carrier classification is that they get much more favorable treatment under the *Guidelines*. The private carrier is participating in a very broad market with

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39 GUIDELINES, *supra*, §1.0.

40 We might have another problem if the hypothesized price increase suggests a borderline market definition. Petroleum might flow into the market through both long and short pipelines. The short lines may have much lower transportation charges. Should we base the price test on the high, low or average transportation charge?

lots of competition while the common carrier is competing in a very narrow market with little competition.

Next, consider our private carrier pipeline merging with the common carrier and suppose again that the merged firm could raise price by one-half cent per gallon. From the perspective of the common carrier, the acquisition is anticompetitive. But from the perspective of the private carrier, the merger should pass muster.

The *Guidelines* tell us that the Agencies want to prevent mergers that create or enhance market power. But the *Guidelines* do not explain how the five percent test accomplishes this purpose. The *Guidelines* do not tell us why five percent is a better starting point than some other percentage increase. They do not tell us why we should use the sales price as the base price for the market test. The *Guidelines* tell us the Agencies will adjust the test but do not tell us what criteria to use to adjust.

There appear to have been several thoughts underlying the SSNIP test. First, some of the authors of the 1982 *Merger Guidelines* apparently wanted to use a profit test. They decided, however, that profit information was not readily available. So the Department settled on a pricing standard, while explicitly retaining the flexibility to adjust the price increase based on profit differences among industries.[41] The *Guidelines* later dropped this reference to a profit adjustment.

A second thought was that the price increase needed to define markets needed to be observable and hence the price increase needed to be significant. According to the chief economist of the Antitrust Division in 1982, Lawrence White, the five percent test reflected, among other things, the desire to get beyond the "noise in any data that might be used to make a determination."[42] Presumably, he had some sort of statistical significance test in mind. Perhaps, there are price changes that are too small to measure in a statistical sense. But that will change from market to market and the five percent test is not based on any analysis of even average significance.

A third thought in the 1984 *Guidelines* was that an adjustment to the price test might be warranted if the price at the level of the industry under review was a small fraction of the final price of the product.[43] Again, this guidance was dropped from later versions of the *Guidelines*.

The adjustments that have actually been made in individual investigation do not seem to follow any particular pattern. There have been occasions where the price test was adjusted down ostensibly because of narrow margins in a particular industry, supermarkets, for example. But there must be many examples of industries with narrow margins where no such adjustment was made. And, we are unaware of examples where the price test was adjusted up because margins were high.

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41 Baker, *supra*, at 329.

42 Lawrence J. White, *Antitrust and Merger Policy: A Review and Critique,* 1 J. Econ. Perspectives, 13, 15 (Fall 1987).

43 1984 *Guidelines*, §2.11.

Not only have these adjustments seemed arbitrary, in what follows, we will argue that narrow margins do not justify the downward price adjustment in the first place. The adjustment does not advance the analysis of the ultimate question posed by the *Guidelines*: is the acquisition anticompetitive? The SSNIP test is actually self-adjusting and no adjustment for narrow margins is needed, according to a 1991 article by John Morris and Gale Mosteller entitled, "Defining Markets for Merger Analysis."[44] The five percent test automatically generates narrower product markets in lower margin industries.[45] Adjusting the five percent test downward would double up on the adjustment, leading to unduly narrow markets, damaging the comparability of competitive effects analysis across markets,[46] misallocating enforcement resources, and adversely affecting consumer welfare.[47]

The Morris and Mosteller analysis begins with the insight that low margins increase the incentive for a hypothetical monopolist to raise price. A price increase that might be unprofitable in a high-margin business might be profitable in a low-margin business, all else equal. When the hypothetical monopolist raises price, it increases its profits on each unit of output it continues to sell. However, the monopolist's output will fall and it will lose the profit on each foregone unit of output. The hypothetical monopolist will find the price increase to be profitable if it gains more on the units that it continues to sell than it loses on the units it can no longer sell. If the monopolist is engaged in a high-margin business, it will lose more on the foregone units than if the monopolist is engaged in a low-margin business. Because the monopolist sacrifices less when it raises prices in a low-margin business, the price increase is more likely to be profitable in a low-margin than in a high-margin business.[48]

Following the procedures set forth in the *Merger Guidelines*, if the price increase is not profitable—in this case because we are dealing with a high-margin business—the market-defining process requires the addition of products (product market) or additional producing locations (geographic market) until the monopolist would find it profitable to increase price.[49] In

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44 36 Antitrust Bull. 599 (1991).

45 *Id.* at 614.

46 *Id*. at 616-17.

47 *Id*. at 624.

48 *Id*. at 608-11.

49 According to Morris and Mosteller, "we can generally expand a potential antitrust market to a point where it becomes profitable for the firms selling in the market to restrict output and raise price." *Id.* at 607. Two things occur when the "market" is expanded in this fashion: demand becomes less elastic and supply becomes flatter. With respect to demand, Morris and Mosteller explain: "the demand curve shifts out because of the greater consumption in the expanded market. The demand curve also becomes steeper because consumers no longer have the previously excluded production capacity as a substitute supply source." *Id.* With respect to supply, Morris and Mosteller offer a similar analysis: "as more production facilities and firms are included in the market, output will be greater at any given price level and, therefore, expanding the products or geographic area shifts out the supply curve. The greater production capacity also implies that any given price increase will lead to a greater increase in output; therefore the supply curve becomes flatter." *Id.* Expanding the market in this fashion makes it more likely profits will increase when price increases. The more inelastic demand implies that a 5% price increase will lead to a smaller percentage output reduction, making the price increase more profitable. The flatter supply curve also means that producers will sacrifice less for each unit of production foregone. *Id.*

narrower margin businesses, less expansion of the provisional market is needed before a five percent price increase becomes profitable. Thus, the *Merger Guidelines* market defining process "automatically leads to narrower markets for 'low profit, low margin' industries."[50] According to Morris and Mosteller: "The minimum likelihood of anticompetitive effect is relatively constant across industries because the smallest market demand curve is at the threshold where profits after the price increase equal profits before the price increase."[51]

Adjusting the price test to reflect margins would wreck the inter-industry comparability of the analysis and would misallocate enforcement resources. It would mean that antitrust enforcers would tend to challenge mergers in low-margin industries where the risk of an anticompetitive effect is smaller, while refraining from challenging mergers in high-margin industries where the risk of an anticompetitive effect is larger. "Stated simply, the authorities would challenge the wrong mergers,"[52] assuming, of course, that five percent is a reasonable price increase for testing purposes.

The adjustment, of course, is based on a hypothetical *price* increase. And as we showed above, using *price* also undermines comparability among industries. Indeed, it can affect comparability within an industry. Prices will be higher downstream than upstream leading to broader downstream markets than upstream markets. Prices at a level can be affected by institutional arrangements that have nothing to do with the competitive effects, e.g., whether a pipeline levies a transportation charge rather than buying and selling the commodity it is transporting.

This might suggest using a percentage of the value added at any given level of the industry rather than using price. But this runs head-long into a different problem, calculating the value added. The value added would depend on the extent to which firms are vertically integrated. And, it may create as many anomalies as a price test. Further, having been given little in the way of rationale for the price test, we would not know how to adjust that test for a value added methodology.

The ideal adjustment to the market definition test is one that is based on the ultimate question of anticompetitive effects. But we know of no adjustment to the SSNIP test that will substantially improve the effects analysis. One might argue about going directly to effects, but that is seldom easy. Sometimes there is direct evidence of effects but other times—particularly in coordinated interaction matters—there is no such evidence.

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50 *Id.* Morris and Mosteller use the supermarket industry as an example of how low margins automatically narrow geographic markets. They illustrate that as supermarket margins decrease from 50% to 10%, the geographic market shrinks from 13,070 square miles to 835 square miles. "Thus, the antitrust market with the smaller margin is less than 1/15 the size of the antitrust market with the larger margin." *Id.* at 614.

51 *Id.* at 611. "Narrower markets (fewer products and less area included) have more elastic demand, and broader markets (more products and greater area included) have less elastic demands. By using the smallest market principle of the *Guidelines*, markets automatically become narrower as the margin decreases because critical demand elasticity grows. Thus, as margin decreases and the likelihood of anticompetitive increases, the *Guidelines'* method automatically increases the threshold for demand elasticity so as to reduce the likelihood of anticompetitive effects." *Id.*

52 *Id.* at 627-28.

Hence, our recommendation is to remove the vague language in the *Guidelines* suggesting that the test may be adjusted. In particular, the test should not be adjusted for narrow margins. Alternatively, the Agencies should provide specific guidance on how the adjustment will be made to avoid the arbitrariness spawned by ad hoc adjustments.

VII. Unilateral Effects

A. Market Shares and Unilateral Effects

This comment focuses on the thirty-five percent threshold and other market share thresholds for unilateral effects in §2.211 of the *Guidelines*. We believe that an effort needs to be made to reconcile these market share thresholds with the guidance offered on market definitions.

There is, to begin with, a need for the Agencies to recognize and correct the tendency to rely on market shares alone to determine whether the merging parties' products are next-best substitutes. But our concerns do not end there.

Section 2.2 of the *Guidelines* addresses the lessening of competition through unilateral effects. According to the *Guidelines*, a merger may diminish competition by enabling the merged firm to raise prices above the prevailing level. The merged firm may find this profitable because it can recapture some of the profits from lost sales when it raises prices on one product through the diversion of sales to the other product. Assuming certain other market conditions, the more intense the substitution between the products, the more that the merged entity can raise price because it can recapture more of the profits on the lost sale through the sale of the acquired product.

According to §2.211 of the *Guidelines*, where the market shares fall outside the safe harbor, the firms have a combined market share of at least 35 percent and other listed criteria are satisfied, "then the market share data may be relied upon to demonstrate that there is a significant share of sales in the market accounted for by consumers who would adversely be affected by the merger." That is, the merged firm will be able unilaterally to raise prices.

But we are told in §1.11 that a product market is a group of products such that a hypothetical monopolist would impose a small but significant and non-transitory price increase, typically five percent. If the merged firm can unilaterally raise prices, does not that mean that the products of the merged firm are in fact a product market? Does not that, in turn, mean that the market shares are not just 35 percent but 100 percent? The *Guidelines* do not answer these questions. There appears to be a clumsy fit between the market definition methodology and the market share presumptions in the unilateral effects analysis.

To be sure, the merged firms can unilaterally raise price, but not by five percent. Then it is possible that including more products in the provisional market may be necessary to satisfy the SSNIP test.[53] And, one supposes that there may be some cases where the merging firms could

[53] We are here specifically addressing §2.211 of the *Guidelines* where competing firms are likely to produce heterogeneous products. Under §2.22, the products at issue may be homogeneous and the unilateral price increase results from suppressing output in a market where there is little excess capacity. It has been typically understood

raise the price say three percent and there will be no challenge because the firms have less than a 35 percent share of a well defined market. And, there will be other cases where there will be a challenge because the firms do have a 35 percent share of a well defined market. But this seems like a rare case, which leaves at least partially unanswered the importance of the market share thresholds in the case where the merging firms would raise price more than five percent.

We recommend that the *Guidelines* either clarify this issue or eliminate the threshold analysis in cases of differentiated products. The *Guidelines* could follow the logic of this comment and say that if the reviewing agency concludes that prices would rise by more than five percent after the merger, the relevant products of the merging firms define a product market. If the merging firms would raise prices by less than five percent, those products are not a product market. But if the merging firms have more than a 35 percent share of the market and other relevant conditions are satisfied, "then the market share data may be relied upon to demonstrate that there is a significant share of sales in the market accounted for by consumers who would adversely be affected by the merger."

B. Repositioning Should Be Rehabilitated

The *Guidelines* acknowledge the potential significance of repositioning, but in practice the Agencies appear to give it short shrift, by conducting, in effect, "opinion polls" of market participants. The *Guidelines* should be revised to make clear that repositioning arguments, if based on objective factors rather than subjective inquiry into competitors' states of mind, should be given real weight in the analysis.

VIII. Price Discrimination

The *Guidelines* discussion of the price discrimination test to delineate relevant product markets would benefit from clarification. As currently drafted, Section 1.12 of the *Guidelines* properly indicates that if price discrimination would be both possible and profitable for a hypothetical monopolist, then a different analysis applies in which the Agencies will consider additional relevant product markets "consisting of a particular use or uses by groups of buyers of the product for which a hypothetical monopolist would profitably and separately impose at least a "small but significant and nontransitory" increase in price." Although the current *Guidelines* adequately identify that a separate test will be used in such situations, further discussion of the scope and application of the test would be beneficial.

First, the *Guidelines* need a definition of "price discrimination." The *Guidelines* initial description of price discrimination is by way of example: "charging different buyers different prices for the same product, for example . . . ." This description does not serve well as a definition and is not in keeping with the description of price discrimination in the remainder of Section 1.12. Indeed, the example itself does not necessarily describe price discrimination at all. Charging different buyers different prices for the same product (i.e., "price differentiation") can

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that the product market should not exclude identical products even if a subset of producers of the homogeneous product could raise prices. So it might be possible that the merged firm could raise price by more than five percent but there are additional homogeneous firms in a well defined market.

result from a large variety of conditions, many of which have nothing at all to do with the ability to price discriminate. These conditions often result from supply-side factors, which can include:

- differential costs to serve different (but similarly situated) customers purchasing the same product;
- inventory management, *i.e.*, the need to shed or retain existing inventory;
- incremental or increasing scarcity of inputs; and
- strategic business reasons for granting some customers preferences over other customers.

Each of these factors, and many others, can result in different prices being charged to different customers purchasing the same product, but none, in and of itself, reveals the ability to price discriminate.[54]

Indeed, any revision to Section 1.12 should clearly delineate between mere "price differentiation" and price discrimination and clearly identify the requirements of price discrimination, which are discussed below.

A. Identification of Infra-Marginal Consumers

The ability to price discriminate implies an ability to identify the infra-marginal customers to whom the hypothetical monopolist can charge discriminatory prices.

> If the hypothetical monopolist has the ability to identify the inframarginal customers, it will have the incentive to charge customers different prices depending on their willingness to pay for the product. In particular, the hypothetical monopolist could charge each customer a price above the competitive price, just below the customer's maximum willingness to pay for the product (a price just below where the customer would no longer buy the product).[55]

Any revision to the *Guidelines* should reinforce that the ability to identify and "target" these customers is the *sine qua non* of price discrimination. "Targeting" these customers requires that the seller be able to segregate the buyers into groups, or identify them individually, based on the buyers' elasticities of demand. [56] Groups of purchasers with a low elasticity of

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[54] *See*, Jerry A. Hausman, Gregory K. Leonard & Christopher A. Vellturo, *Market Definition Under Price Discrimination*, 64 ANTITRUST L.J. 367 (1996) ("For instance, in an industry where long-term contracts are prevalent, it is quite common for two customers to receive the same physical product at different prices because their contracts were negotiated at different points in time when economic conditions differed.")

[55] *Id.*

[56] Gloria J. Hurdle , *Price Discrimination and Economies of Scale in Merger Analysis*, ANTITRUST, Spring 1991.

demand – *i.e.*, those with few or no alternatives – may be more susceptible to a SSNIP than those customers with high elasticities of demand.

It is crucial to note that the mere presence of infra-marginal customers cannot serve as the basis for a price discrimination market unless the seller can identify ***and*** act differentially toward those customers. Some confusion on this topic has been introduced by the D.C. Circuit panel decision in *FTC v. Whole Foods*.[57] In an unfortunate analysis of the topic, the court held that

> The district court assumed "the 'marginal' consumer, not the so-called 'core' or 'committed' consumer, must be the focus of any antitrust analysis." Whole Foods, 502 F. Supp. 2d at 17 (citing Horizontal Merger Guidelines, 57 Fed. Reg. 41,552 (1992)). To the contrary, core consumers can, in appropriate circumstances, be worthy of antitrust protection. See Horizontal Merger Guidelines § 1.12, 57 Fed. Reg. at 41,555 (explaining the possibility of price discrimination for "targeted buyers"). The district court's error of law led it to ignore FTC evidence that strongly suggested Whole Foods and Wild Oats compete for core consumers within a PNOS market, even if they also compete on individual products for marginal consumers in the broader market. See, e.g., Appellant's Br. 50, 53.

On this basis, the court reversed the judgment of the District Court without any discussion or analysis of how the merged firm might be able to act differentially toward the different customer segments. The court misread the *Guidelines* in concluding that the mere existence of "core" (*i.e.*, infra-marginal) customers is a sufficient basis for applying a price discrimination test. If such were the case, then the price discrimination test would be applied to each and every merger involving differentiated products. The central error of the *Whole Foods* decision is that the court failed to consider whether the merged firm could act differentially toward the infra-marginal customers or whether, instead, they were protected by the marginal consumers.[58]

As *FTC v. Staples* made clear, it is possible to define a separate relevant product market around a distinct group of retail outlets, and the FTC's Complaint in *Whole Foods* sought to do just that by identifying the affected market as "premium, natural and organic supermarkets." But a narrow relevant product market should not be confused with a price discrimination market in which a hypothetical monopolist can charge discriminatory prices as to some subset of customers within that market based on a knowledge of their demand elasticity.

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57 548 F.3d 1028 (D.C. Cir. 2008).

58 The use of a price discrimination test in a retail context – where a single price is offered to all comers – has been troublesome in other cases. In *Bon-Ton Stores v. May Department Stores Co.*, 881 F. Supp. 860 (W.D.N.Y. 1994), the court found that what it referred to as "core customers" preferred to shop for upscale women's clothing and cosmetics primarily, if not exclusively, at traditional department stores. On this basis, the court held that department stores constituted a separate submarket apart from other retailers such as specialty shops, discount stores, and catalog merchandisers. Significantly, the court in *Bon-Ton* relied in part on the *Merger Guidelines* and a price discrimination analysis, but never asked whether these "core customers" were protected from price increases by those more willing to shop for similar products in other channels. *Bon-Ton* is a significant departure from other cases dealing with retail stores.

Any revision to the *Guidelines* should make clear that the mere presence of infra-marginal consumers is not a sufficient basis on which to apply a price discrimination test. Rather, a hypothetical monopolist must have the ability to identify the infra-marginal consumers, based on knowledge of the elasticities of demand of various groups of consumers within the broader market, in such a way as to permit discriminatory pricing.

B. Specific Knowledge of Product or Service Preferences May Be Necessary to Target Infra-Marginal Customers

In some cases, gaining an understanding of the elasticities of demand of individual customers or customer groups will require a knowledge of the specific product or service attributes that are valued by the customer. For example, if a certain beverage is differentiated because it "tastes great" and is also "less filling," but the infra-marginal consumers consist only of those customers who value the great taste (because the fans of the "less filling" attribute are willing to switch in response to a SSNIP), then a seller would have to know which specific customers value the great taste in order to impose a differential price increase on those consumers. In some instances, this requires a sophisticated comprehension of consumer preferences and requirements as well as an ability to identify and target these consumers.

The *Commentary* provides some discussion of how price discrimination has been applied in practice by the Agencies. For example, the *Ingersol-Rand/Flowserve* case is cited as an example of ability to price discriminate because the pumps sold by those companies were "produced according to the specification of the particular buyer and sold through bidding mechanisms." While price discrimination may (or may not) have been possible in that case, bidding markets for specified products do not necessarily provide sellers with the requisite information to execute a price discrimination strategy.

It is well established that price discrimination in bidding markets requires a specific knowledge of the first- and second- best alternative for the individual customer. Most of the economic models discuss these alternatives in a bidding setting as being the lowest-cost and next lowest-cost suppliers. "If the low-cost and second-lowest-cost manufacturers merge, then the merged entity must merely underbid the third-lowest-cost manufacturer. This can be accomplished by raising price to a level just below the costs of that third manufacturer. When the costs of that third manufacturer substantially exceed those of merging parties, there are substantial gains from merger."[59]

In some cases, however, the identification of the first- and second- best competitors is complex and varies by customer. "[A] merger would only alter the prices paid by those customers to whom the merging parties represent the two lowest-cost suppliers. Since customers have diverse preferences for the features and styling of a particular product, the merging parties are unlikely to be the two lowest-cost producers for all customers soliciting bids. Thus, if firms

[59] David T. Levy& James D. Reitzes, *The Importance of Localized Competition in the 1992 Merger Guidelines: How Closely Do Merging Firms Compete?* 62 ANTITRUST L. J. 695 (1994) (footnote omitted).

are able to discriminate in their pricing, the anticompetitive effects of merger may be confined to a distinct group of customers."[60]

In cases where the two best choices vary by customer, a price discrimination scheme requires a detailed knowledge of consumer preferences in order to identify the infra-marginal consumers for any pair of competitors. The facts in *Oracle* illustrate this point well.[61] In *Oracle*, even under the DOJ's proposed market definition (which ultimately was not accepted by the court), there were three participants in the relevant market for "high-function" HRM and FMS software: Oracle, Peoplesoft, and SAP.[62] Each market opportunity – as in the *Ingersol-Rand/Flowserve* merger – involved a highly customized product procured through a bid process. For each bid competition, there was a bake-off among competitors in which typically two participants won the right to submit final bids. In a pre-merger world, the parties sometimes were able accurately to assess who their rival was for the final bid.[63]

This knowledge in a pre-merger setting, however, does not imply the ability to price discriminate against individual customers post-merger, even if we assume that only Oracle and SAP remained in the market. A price discrimination scheme that would allow Oracle to impose a SSNIP post-merger would also require that Oracle be able to assess the specific requirements and preferences of a customer and identify those situations in which Peoplesoft *would have imposed* a more significant constraint on competition than SAP.[64] Absent this knowledge, post-merger price discrimination would not be feasible.[65]

The Agencies themselves have illustrated this point in their 2006 submission to the OECD Competition Committee Working Party No. 3regarding bidding markets: "Despite having a combined 90% share of consumers, a merger of firms 1 and 2 generates no [anti]competitive effects because these firms are never the two most preferred alternatives. When one of them is most preferred, firm 3 or 4 is second best. There is no head-to-head competition between firms 1 and 2."[66] Knowledge of the second-best alternative is crucial to execution of a price

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60 *Id.*

61 331 F. Supp. 2d 1098 (2004).

62 While it could be argued that customers requiring, *e.g.*, high function HRM software themselves comprise a price discrimination-based market, this was not the allegation of the DOJ's Complaint, which instead defined these customers as comprising the broader relevant product market. Thus, a price discrimination analysis requires that we consider whether the merged parties were able to target specific customers (or groups of customers) within the users of high-function HRM software.

63 The evidence revealed that Oracle was accurately able to identify its ultimate rival slightly less than half (48%) of the time. The remainder of the time, although Oracle believed it knew the ultimate competitor, post-competition surveys revealed that it was inaccurate in its assessment of the final competitor.

64 In order for this to be the case, the evidence would have to show that Oracle was able reliably to assess (pre-merger) their ultimate competitor based on the data revealed by the consumer.

65 Of course, in such a situation a merger may still lead to a unilateral or coordinated post-merger price increase to consumers in the relevant market on the whole, but not on the basis of a price-discrimination scheme.

66 OECD, "Competition in Bidding Markets," (June 4, 2007), *available at* http://www.oecd.org/dataoecd/44/1/38773965.pdf at 198.

discrimination strategy. Gaining this knowledge requires insight into customer preferences which is often assumed, but is not always readily knowable.

> Often it is suggested that, in the course of serving customers, producers learn about their customers' preferences over various alternative products and, therefore, are able to infer which customers have high willingness to pay for a given product. Thus, the argument goes, the hypothetical monopolist could make educated guesses about which customers would accept a price increase. However, customers have the incentive to disguise their preferences precisely because they want to avoid becoming targets for higher prices. Thus, any assessment by a producer of a customer's willingness to pay will involve substantial uncertainty. Like any guess, this guess can be wrong. A sufficient number of wrong guesses can make the attempt to price discriminate unprofitable. In many cases only a small percentage of wrong guesses is required before an attempt at price discrimination becomes unprofitable.[67]

Any revision to the *Guidelines* should make clear that the ability to target infra-marginal consumers may require specific knowledge of the product or service preferences of individual consumers (or groups of consumers) so as to permit differential pricing post-merger. Absent such knowledge, price discrimination may not be feasible. Bid markets for specified or customized products may provide such information, but will not always do so.

C. Arbitrage Sufficient To Discipline a SSNIP Must Not Be Likely To Occur

Section 1.12 makes passing reference to the import of arbitrage to the price discrimination analysis, noting that price discrimination is possible "if other buyers likely would not purchase the relevant product and resell to targeted buyers." The *Commentary* asks the arbitrage question in a more directed and salient way: "Would customers or third parties be able to undermine substantially the discrimination through some form of arbitrage in which a product sold at lower prices to some customer groups is resold to customer groups intended by the firms to pay higher prices?" The *Commentary* makes clear that if arbitrage is possible, then the execution of a price discrimination scheme may not only be defeated if undertaken, but may also be preempted in the first instance.

In theory, arbitrage sufficient to discipline an attempted SSNIP is a simple concept: "Arbitrage occurs when a customer paying a low price can profitably sell the good in question to a customer that would otherwise pay the high price. As more and more people begin selling to high price customers, price begins to fall, and eventually the price differences disappear."[68] In practice, arbitrage must not only be theoretically possible, but (as with entry), timely, likely and sufficient to counter any potential SSNIP.

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67 Hausman, et. al., *supra*.

68 *See* Hurdle, *supra*.

The cost of arbitrage, and not the mere possibility of arbitrage, should be considered. While arbitrage might prevent the hypothetical monopolist from fully exploiting the market power over the infra-marginal consumer, there is also a cost to arbitrage that must be considered. As noted above, the customers paying the low price must be incented to sell to the customers paying the high price, implying that a sufficient difference in prices must be present. This is because an arbitrageur will charge a margin for its services, and other costs (transportation, repackaging, etc.) might also be incurred. Since, by definition, this difference must be equal to or greater than a SSNIP (otherwise there would be no separate group to price discriminate against), then the cost of arbitrage must – again by definition – be less than a SSNIP.

To evaluate the likelihood and sufficiency of arbitrage, the Agencies should look to key aspects of the market structure. For example, if the market includes large distributors who are not themselves infra-marginal customers, then arbitrage may be likely to occur. In addition, if the volume demanded by the infra-marginal customers is small, then a lesser degree of arbitrage would be necessary to offset a SSNIP. Finally, if arbitrage already exists in the marketplace, or has occurred in response to past natural experiments, then it would be reasonable to expect it to occur once again. By the same token, there are features of a market which will make arbitrage infeasible. Product customization, long-term contracts, lengthy lead-times, sunk costs and other factors may make arbitrage impossible in some circumstances.

Any revision to the *Guidelines* should emphasize the import of arbitrage as a means of preventing the execution of price discrimination. It should state that arbitrage, like entry, must be timely, likely and sufficient to deter a SSNIP. A revision also should discuss the factors that the Agencies will consider in evaluating the likelihood of arbitrage.

IX. Non-Price Competition and Innovation

Should the *Guidelines* be updated to address more explicitly the non-price effects of mergers, especially the effects of mergers on innovation?

This question can be divided into at least two parts: non-price competition generally and innovation in particular. The guidance that can be offered with confidence depends upon how confident the Agencies are about the economic underpinnings for a relationship between mergers and changes in non-price elements or innovation that clearly harm consumers.

A. Non-Price Competition

Non-price competition implicates many topics relevant to antitrust analysis of both mergers and business conduct. It has been generally accepted that the proper analysis of collusion is complicated when factors other than narrowly defined "price" influence consumer choices.[69] However, substantial non-price elements may affect the intensity of direct *price*

[69] Anyone who has reviewed the old 1930s National Recovery Act Codes of Conduct for seemingly simple, homogeneous products like Portland Cement comes away with a renewed appreciation for the effort that goes into attempts to actively minimize competitive rivalry between producers. The Portland Cement Code, for example, either specified or limited competition on more than 30 price and non-price elements.

competition. That result may or may not create a role for unilateral effects analysis, depending upon how sensitive customer choice is to changes in non-price elements across the full spectrum of potential alternatives.

Rolling non-price competition into merger analysis raises some important questions. Non-price attributes (e.g., quality, service, information, features, etc.) complicate collusive schemes that do arise,[70] but may make collusion less attractive from the outset.[71] Non-price elements may make escape from price competition both feasible and attractive—and consumer welfare enhancing. Arguably, mergers that reduce non-price competition may make price competition more intense but may also make collusion more likely.

Product differentiation may moderate the importance of price in determining which supplier customers on the margin patronize.[72] As a result, a focus solely on price may miss important features of competitive interaction. It is possible that over some range of prices and qualities a small change in quality that costs the supplier a given amount, $X, to provide would have a much more important impact on consumer demand than would an price concession costing an equivalent amount in foregone revenue.[73]

If non-price competition is made a substantive part of the *Guidelines'* approach to assessing either markets or competitive effects, is there anything to be gained by expanding on discussions already in the *Guideline*s of product repositioning or new product introductions in response to a merger? Firms alter prices relatively frequently and, so, it may be relatively easier to assess how small or not so small relative price changes affect consumption patterns and how that implies something about the competitive effect of a proposed merger. If product attributes and features are more durable and, so, change less in the pre-merger environment, it may be more difficult to determine how small or not so small changes in product features would affect choices, holding prices fixed. This problem relates to repositioning.[74]

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70 G. Stigler, *Price and non-price competition*, 76(1) J. of Political Econ.149-154 (1968); D. Ginsberg, *Nonprice competition*, 38 Antitrust Bull. 83-112 (1993).

71 K. Judd, *Credible spatial preemption*, 16 RAND J. of Econ. 153-166 (1985). Judd reacted to the anticompetitive "product proliferation" theory advocated during the *RTE Cereals* case by the FTC's expert, Richard Schmalensee. Judd noted that when entry occurs in a packed space, multiproduct incumbents may find it most profitable to withdraw from the segment that has been entered, making a product-proliferation strategy non-credible. In essence, firms with the ability to differentiate may soften price-competition by doing so and, so, have less reason to collude on price, given both the greater complexity of doing so in a differentiated product space and the costs they will bear upon detection and punishment (public and/or private). An extension of Tirole's observation is the more recent "escape competition" explanation for R&D investments.

72 The airline industry has been a fertile ground for research on purported non-price competition and its impact on consumer choice. This may be because non-price attributes change more frequently in this than in other industries or simply because data is more readily accessible.

73 In a full equilibrium it may well to true that any change in a variable controlled by the firm would have the same impact on demand per dollar spent.

74 It may or may not be possible to draw inferences about likely rival responses either by looking at instances where new products have been introduced into an otherwise unchanged set of products that includes the products of the merging firms or, more usefully, how new product introductions or product repositioning followed from the elimination of one of the merging firm's products in some geographic market. Whether these kinds of events would

B. Innovation

The attention paid to so-called high innovation markets[75] has created numerous articles but not much guidance about when buyers and sellers ought to know that their proposed transaction eliminates important aspects of competition that cannot be replaced, more or less easily, by others. This is not surprising. As the Nobel-winning physicist Neils Bohr noted: "Prediction is easy–except when it is about the future." This might not be too troubling if there were a robust consensus among economists about the precise relationships between the number of competitors, the features of these competitors, and innovation or productivity growth. Unfortunately, that is not the case.[76]

The innovation markets approach has been largely confined by the Agencies to the pharmaceutical industry. The reason is that this industry, unlike many others, requires competitors to alert their rivals to the ongoing status of their product (*but not process*) R&D activity through filings with regulatory agencies such as the FDA.[77] For this industry, the status and likely timeline to market for *all* competitors' products is knowable. The Agencies and now merging parties can know who is working on specific disease treatments, where they are likely to stand in the queue of potential competitors and how third parties view the value of the product innovations. This knowledge lends some apparent transparency to an evaluation of whether a merger is substantially likely to reduce competition by eliminating competing research programs. This is information, however, that is not available in most other markets with the same transparency.

The Agencies can obtain, through the HSR or equivalent process, detailed information on the R&D projects being undertaken by firms proposing to merge before granting regulatory

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rise to the level of a true "natural experiment" or not can be debated. However, finding examples of this sort of behavior, especially the latter, is likely to be difficult for many mergers.

[75] Innovation markets appear to have at least two meanings. One meaning is an industry where a lot of perceived innovation occurs (e.g., pharmaceuticals, semiconductors) but it may also include other features of interest including the importance and structure of intellectual property rights, rapid change in either processes or products, increasing returns to scale, demand-side network effects, standardization issues, and a high degree of technical complexity. *See* U.S. Submission to the OECD Roundtable on Merger Review in Emerging High Innovation Markets, DAFFE/COMP(2002)20, January 24, 2003 at 141. A second meaning appears to be a marketplace for innovation itself. *See* Richard J. Gilbert and Steven C. Sunshine, *Incorporating Dynamic Efficiency concerns in Merger Analysis: The Use of Innovation Markets*, 63 Antitrust L.J. 569 (1995) ("A merger that has adverse effects on innovation could affect prices and products in markets where the merging firms do not compete pre-merger and even in markets where the merging firms are not likely potential competitors.").

[76] The most recent version of the relationship between competition (somehow defined) and innovation (somehow defined) is that it is an inverted U-shape. At low levels of competition an increase in the number of rivals (or "competition") enhances innovation or total factor productivity, while at high levels of competition a reduction in the number of rivals (or "competition") also enhances innovation or total factor productivity. *See, e.g.*, Philippe Aghion, *et al*., *Competition and innovation: An inverted U Relationship*, 120 Quarterly J. of Econ., 701-728 (2005).

[77] More recently, and possibly in response to pressure from the Securities and Exchange Commission, pharmaceutical companies listed on U.S. exchanges have begun listing their product pipelines in some detail in Annual Reports and 10ks in a way that they formerly did not do. In any event, the antitrust agencies are able to access FDA filings on the status of products by therapeutic category (or more narrowly).

approval. The Agencies cannot so easily require that competitors of the merging firms provide equivalent information, much less provide that information to the merging parties. Perhaps more importantly, even if the Agencies could obtain data from non-merging firms with a turn-around time relevant for merger review, they do not necessarily know whom to interrogate in the private (or the public) sectors, especially in innovation markets that are global.[78]

The same problem arises in actual potential competition analysis.[79] In these cases, a market is not performing well and performance would improve materially if one or another of a small set of firms with active entry plans–but plans not known to incumbent suppliers–enter. Agencies are likely to know whether one or the other of the two merging firms have plans to enter an otherwise concentrated and poorly performing market, but they are not as likely to know about the plans of any other firm(s) to do so.

One set of issues that the *Guidelines* should resolve if innovation market analysis is addressed has to do with burden of proof. When is the evidence regarding the set of innovators sufficiently good so that a merger between two (or more) of them can credibly be viewed as eliminating a non-trivial amount of competition *in an actual or potential market*?[80] Clear guidance on how the Agencies intend to handle complementary knowledge-based assets in evaluating a merger when there are only a few observable rivals would be welcomed.

Other than in industries where regulations require disclosure of entry plans and those plans, again possibly due to regulation, take a long time to come to fruition, R&D programs are viewed a proprietary.[81] So, on top of speculation about the likelihood that both firms will succeed in innovating or that the presence of each firm provides significant motivation for the other to engage in specific types of R&D, one must speculate about the number of other innovators targeting the same end uses or productive processes. The *Guidelines* could provide

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78 For example, in 1979 or 1980 someone asking who was doing work likely to result in a leading operating system for personal computers would have uncovered Digital Research (CP/M) or Novell, but perhaps not Microsoft. In office software like word processing or spreadsheets, the firms might have been WordStar, Lotus and Borland but, again, not Microsoft. In 1984, firms developing PCs would have included IBM, but might not have included Dell.

79 Perceived potential competition cases–cases where a dominant firm or group of firms is kept in check by their perception that a one or a very limited set of firms on the edge of the market would become active suppliers if price rose (quality fell) by a SSNIP–may in some ways be a bit easier to handle precisely because the incumbents have identified the most likely entrants.

80 The FTC closed an investigation that could have been characterized as "merger to monopoly" in a drug-innovation context designed to treat Pompe's disease, a rare but often fatal disease. The rationale appeared to be that the two firms together were much more likely to develop a viable product than were either firm separately or both firms separately and the prospect that both firms would succeed was remote. The probability patients would produce a treatment post-merger was higher than the probability they would have one pre-merger. *See* Statement of Chairman Timothy J. Muris, in the matter of Genzyme Corporation /Novazyme Pharmaceuticals(Jan. 13, 2004) *available at* http://www.ftc.gov/os/2004/01/murisgenzymestmt.pdf.

81 Even if firms opened their R&D programs to government review at a given moment in time, surprises may subsequently arise that undermine a firm's success or, as in the case of the pharmaceutical sildenafil citrate (Viagra®), a program designed to target one use may turn out to have unanticipated uses valued by some consumers somewhere else.

some useful guidance on just how much speculation should be associated with a meaningful "innovation market" case.[82]

[82] The 1982 *Guidelines*' discussion of potential competition cases touched on this issue by limiting cases to instances where there were three or fewer identifiable relatively equally situated potential entrants. This meant that defendants and the Agencies did not need to find literally every potential entrant or calculate market shares for potential entrants in a way similar to the calculation for actual producers. If the Agency or the defendants could produce evidence for three (or more) credible potential rivals, the potential competition (innovation market?) approach ended. If not, the Agency could pursue a case. Unfortunately, the *Guidelines* do not provide a solid rationale for the "three is enough" line of demarcation.