



## MEMORANDUM

From: Pate Empirical Study *Ad Hoc* Group

To: All Commissioners

cc: Andrew J. Heimert and Commission Staff

Date: March 23, 2005

Re: Consideration of Comprehensive Empirical Study of Antitrust Law Enforcement

This *ad hoc* group was formed to consider a proposal by Department of Justice Antitrust Division Assistant Attorney R. Hewitt Pate (“AAG Pate”) that the Commission consider “engaging respected experts . . . to design a rigorous study of the effects of antitrust enforcement.” In further discussion with the group, AAG Pate suggested that the Commission might invite economists to propose and discuss possible studies and the types of data it would be desirable to obtain. Rather than undertake or underwrite the study itself, the Commission could propose to Congress both funding for a study or studies and statutory authority to enable a governmental or other entity to collect the data and conduct or commission the conduct of the study or studies.

The *ad hoc* group believes there would be significant value in demonstrating that enforcement of the antitrust laws benefits consumers and the economy (or in identifying areas in which it has not, if that indeed is the case). While we agree that it would be impractical for this Commission to undertake such a study given its limited time and resources, we also believe that the Commission’s limited resources should not be directed towards the design of such a study, which we believe would best be undertaken by the entity or person conducting the study itself.

The group also recommends, however, that the Commission consider opportunities for more limited empirical studies regarding the specific issues it has selected for study and also, where appropriate, identify possible direction for further research to be conducted by others.

## Discussion

### *Recent Related Work*

Several scholars have studied the efficacy of antitrust law enforcement. Most recently, for example, Robert W. Crandall and Clifford Winston (both senior fellows at the Brookings Institute) recently published an article that concluded that there is little empirical support for the proposition that antitrust enforcement has provided direct benefits to consumers or deterred anticompetitive conduct. See Robert W. Crandall and Clifford Winston, *Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence*, J. ECON. PERSP. 3 (Fall 2003).<sup>1</sup> Crandall and Winston studied the three main areas of antitrust enforcement: monopolization, collusion, and mergers. In each area, they concluded that the empirical evidence does not demonstrate that enforcement has benefited consumers. Other studies have reached the opposite conclusion, however, and several commentators have challenged the Crandall-Winston paper on a variety of grounds, including that the data relied upon are insufficiently robust to support the conclusions. See, e.g., Jonathan B. Baker, *The Case for Antitrust Enforcement*, J. ECON. PERSP. 27 (Fall 2003); Gregory J. Werden, *The Effect of Antitrust Policy on Consumer Welfare: What Crandall and Winston Overlook*, AEI-Brookings Joint Center For Regulatory Studies, Related Publication 04-09 (Apr. 2004), available at <http://aei-brookings.org/admin/authorpdfs/page.php?id=933>; John E. Kwoka, Jr., *The Attack On Antitrust Policy and Consumer Welfare: A Response To*

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<sup>1</sup> AAG Pate noted that this article was one of the inspirations for his suggestion to the Commission.

*Crandall and Winston*, Northeastern University, Department of Economics Working Paper 03-005 (March 2003), *available at* <http://www.economics.neu.edu/library/research/john2.pdf>. Some of those criticisms are explained below.

With respect to monopolization, Crandall and Winston considered primarily government cases against Standard Oil, American Tobacco, Alcoa, Paramount, United Shoe Machinery, and AT&T. Crandall & Winston, at 13-14. Using prior industry case studies, as well as other information, they concluded that such enforcement has not lowered prices or increased output, most often because of the length of the investigation and litigation, during which time whatever monopoly power may have existed was dissipated by marketplace evolution.

With respect to cartel enforcement, Crandall and Winston concluded that “researchers have not shown that government prosecution of alleged collusion has systematically led to significant nontransitory declines in consumer prices.” Crandall & Winston, at 15. They base their conclusion principally on a statistical study of Sherman Act cases by Michael Sproul,<sup>2</sup> which they interpret as indicating that, on average, enforcement resulted in higher prices. They acknowledged, however, that there have been a substantial number of cartels in which firms have colluded to raise prices. *Id.* at 15.

Finally, Crandall and Winston reach a negative conclusion regarding merger enforcement, basing their conclusion on the results of three types of studies: stock price studies, margin studies and natural experiments in the airline industry.

- Two stock-price studies of the effects of mergers and merger enforcement, which rely on the premises that anticompetitive mergers should raise rivals’ stock prices relative to the market and that prosecution of anticompetitive mergers should have the opposite effect. *Id.* at 16.

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<sup>2</sup> Michael F. Sproul, *Antitrust and Prices*, 101 J. POL. ECON. 741 (1993).

- Price-cost margin studies, which they contend are fair measures of the degree of competition in an industry: blocking an anticompetitive merger should push prices towards cost, while allowing an anticompetitive merger should move prices away from cost, increasing the price-cost margin. *Id.* at 17.
- “Natural experiments” — in particular two airline mergers that the Department of Justice opposed but that the Department of Transportation permitted, despite DOJ’s objections. *Id.* at 16-17.

Based on a study of those mergers, Crandall and Winston conclude that the mergers lowered prices or increased quality. Ultimately, Crandall and Winston conclude that

efforts by antitrust authorities to block particular mergers or affect a merger’s outcome by allowing it only if certain conditions are met under a consent decree have not been found to increase consumer welfare in any systematic way, and in some instances the intervention may even have reduced consumer welfare.

*Id.* at 20.

As noted, others have criticized the Crandall and Winston study as to each of its three general conclusions. On monopolization, for example, Baker points out empirical work not discussed by Crandall and Winston indicating that Standard Oil’s behavior may have been monopolistic. Baker, at 36 n.8 (citing Elizabeth Granitz and Benjamin Klein, *Monopolization by “Raising Rivals’ Costs”: The Standard Oil Case*, 39 J. L. & ECON. 1 (1996)). Similarly, both Baker and Werden strongly challenge the Crandall and Winston conclusions regarding cartel enforcement. Baker points to widespread and durable collusion during the 1930s under the National Industrial Recovery Act (NIRA), when “fair competition” codes relaxed antitrust prohibitions. Baker and Werden separately point to substantial evidence about cartels that have appeared substantially to have raised prices, including the lysine and vitamins cartels. *See* Baker, at 28-29; Werden, at 3-4 (citing JOHN M. CONNOR, *GLOBAL PRICE FIXING: OUR CUSTOMERS ARE THE ENEMIES* (2001)). Finally, the Crandall and Winston analysis of merger enforcement has also been criticized. Werden, for example, notes that price-cost margin values are not considered valid indicators of the relationship between economic cost and price. In

addition, using broad 2-digit industry codes—which typically do not constitute relevant “antitrust markets”—likely runs a high risk of masking any potential effects. *See* Werden, at 5.

### *Possible Empirical Approaches*

An empirical study could take one of several forms. Some of the possibilities are generally described below.

First, one might perform non-quantitative case studies of particular industries and enforcement actions. In such studies, enforcement effects are estimated informally, based on the analyst’s judgment using readily available information. Such studies might be similar to the classic “industry studies” of the post-war era, which typically examined the history of the industry and the firms within it, considering firm size, concentration, scale economies, pricing, and similar information. Although those studies employed quantitative tools, they did not analyze industry performance within the framework of a fully articulated economic model as the state of economic techniques did not at the time allow it. Typically, they involved assessing some particular antitrust case. *See, e.g.,* CARL KAYSEN, UNITED STATES V. UNITED SHOE MACHINERY CORPORATION (1956); RICHARD B. TENNANT, THE AMERICAN CIGARETTE INDUSTRY: A STUDY IN ECONOMIC ANALYSIS AND PUBLIC POLICY (1950); WILLIAM H. NICHOLS, PRICE POLICIES IN THE CIGARETTE INDUSTRY-A STUDY OF “CONCERTED ACTION” AND ITS SOCIAL CONTROL, 1911-1950 (1951). The principal critique of this study method, however, is that it is insufficiently quantitatively rigorous to provide definitive answers.

Second, one might more formally model industry demand, costs, and competition to predict the effect of enforcement or to retrospectively assess how an enforcement action affected the market. Typically such studies estimate demand, cost, and relationships describing pricing

behavior, in a framework that allows estimation of the degree to which market power is exercised. (Such studies are sometimes called the “New Empirical Industrial Organization.” See Timothy F. Bresnahan, *Industries with Market Power*, in 2 HANDBOOK OF INDUSTRIAL ORGANIZATION 1012-13 (Richard Schmalensee & Robert Willig eds., 1989).) Based on such estimates, one might, for example, estimate the effects of mergers that were prevented by antitrust enforcement. In particular, such methods have been used to study the food processing, coffee roasting, rubber, textile, automobile, and banking industries. *Id.* at 1051. Studies of this type often require extensive price data of the sort that may not be readily available. Moreover, because the studies rely on theoretical models, they can be open to the criticism that the model used is not appropriate.

Third, one might employ so-called “natural experiments.” Such experiments may take one of several forms. A natural-experiment study might compare the performance of markets that are similar, but where only one is affected by the policy or enforcement action in question. For example, such natural experiments may be available for transactions or policies that affect different local or regional markets differently. See, e.g., Michael G. Vita, *Regulatory Restrictions on Vertical Integration and Control: The Competitive Impact of Gasoline Divorcement Policies*, 18 J. REG. ECON. 217 (2000) (comparing gasoline pricing in states that adopted “divorcement” policies barring vertical integration of gasoline refiners and retailers with prices in states without such policies); Thomas S. Gilligan, *Imperfect Competition and Basing Point Pricing: Evidence from the Softwood Plywood Industry*, 82 AM. ECON. REV. 1106 (1992) (evaluating FTC’s proceeding to eliminate basing-point pricing in softwood plywood); Orley Ashenfelter, Jonathan Baker, David Ashmore, and Daniel Hoskin, *Econometric Methods in Staples*, in AMERICAN BAR ASSOCIATION SECTION OF ANTITRUST LAW, ECONOMETRICS IN

ANTITRUST (John Harkrider ed., forthcoming) (comparing prices across geographic areas in relation to differing numbers of office superstores). Properly executed, such evaluations should be considered the “gold standard” for studies of this type: they can take account of specific features of demand, cost, and competition in the relevant markets; such real-world information reduces reliance upon untestable theoretical and empirical assumptions. Such experiments are not always possible, however. For example, because federal antitrust laws are national in scope, it may not be possible to compare the performance of different local markets.

Because all three of these methods focus on specific transactions or enforcement actions, their results may not allow for broader conclusions regarding the antitrust laws. In particular, because antitrust laws rely on general deterrence in addition to specific enforcement actions, a comprehensive evaluation of the regime would necessarily go beyond natural experiments that considered specific transactions, to assess transactions that might have occurred but for the policy. Such evaluations are more difficult than those of specific cases. Several methods have been used for such assessment. First, economic performance might be compared across countries with different enforcement regimes. In perhaps the first such study, George J. Stigler found that industry concentration had increased somewhat more in the United Kingdom, which at the time had little merger enforcement, than in the United States. *See* George Stigler, *The Economic Effects of the Antitrust Laws*, 72 J. POL. ECON. 44 (1964). Because of cross-border economic differences, such methods have not often been pursued. Alternatively, a study might examine the effects of changes in enforcement regimes: for example, whether the nature of merger challenges and proposed transactions changed after the 1982 revision of the Horizontal Merger Guidelines. By looking at time series data, one might be able to draw conclusions about particular enforcement practices.

In summary, designing a study that comprehensively evaluates the antitrust laws presents substantial challenges. The group believes those hurdles could be overcome, at least in significant part, through careful design and access to robust data. The remaining question, addressed next, is whether this Commission is best positioned to dedicate effort to overcoming those challenges.

### Recommendations

As with regard to any regulatory regime, it could be of substantial value periodically to assess the effectiveness of enforcement through empirical study. Indeed, this Commission may benefit from such empirical analysis in assessing some of the issues it has selected to study. The *ad hoc* group does not believe, however, that this Commission is in the best position to undertake or design and commission a broad study on the efficacy of antitrust enforcement or policies. The group believes that the academic community, in conjunction with practitioners, will continue to have a strong interest in initiating and producing studies where available data permit. Indeed, funding for academic study is often available through the established academic grant channels, which may provide a superior mechanism to evaluate and support worthwhile research in this area. In addition, the group believes that, in certain areas, a comprehensive study may be of relatively less value. Cartel enforcement, for example, is already generally recognized as bringing benefits, both directly (as described in the Connor study cited above and elsewhere), and indirectly, through its deterrence of other cartels.

The *ad hoc* group accordingly recommends that in, connection with its study of specific issues it has already selected, the Commission should consider existing studies on point, conduct its own targeted empirical analyses if useful, and propose additional avenues for further research

and study by others if appropriate. However, the group recommends that decisions on whether and how to conduct a *comprehensive* study of the benefits of antitrust law be left to Congress and any entity charged with conducting such a study. This Commission, after its three years of work, may well be in a position both to offer more limited assessments about particular areas of antitrust enforcement and to offer possible directions for additional empirical research. Accordingly, the *ad hoc* group recommends that the Commission restrict its efforts to undertaking limited empirical studies and suggesting avenues for further development, as appropriate, in the course of its considering issues already selected for further study.