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NEW RESEARCH PROVIDES INSIGHT INTO INVESTIGATING CARTEL BEHAVIOR

Jeffrey Klenk, Economist, Econ One, Washington, D.C.

How can an economist or an antitrust authority determine whether a market is behaving competitively? Many times, the behavior observed in a market experiencing illegal conduct is indistinguishable from pricing outcomes that initially appear competitive. In a price-fixing conspiracy, for example, every firm charges the same price. This also is a characteristic of perfectly competitive markets. Absent insider information or guilty pleas by industry executives, looking for signs of anticompetitive behavior can be a frustrating task.

To aid their investigations of markets with possible misconduct, economists commonly rely upon an analytical framework based on the Posner Factors, named after Judge Richard Posner. He hypothesizes that certain industry conditions such as a high concentration of sellers as well as high barriers to new entry likely are correlated with anticompetitive behavior. Although these factors delineate “conditions favorable to collusion,” Posner acknowledges the difficulty inherent in determining when the factors are fulfilled sufficiently for collusion to be attractive to market participants.¹ Economists are, as a result, left to their own judgment as to whether the Posner Factors are indicative of anticompetitive behavior in a given industry. A recent

article by Yuliya Bolotova, however, confirms the importance of the Posner Factors and provides empirical evidence as to when specific factors might be strongly correlated with anticompetitive behavior.²

Prior to Bolotova’s article, most previous studies of cartel behavior examined a cartel’s duration (or how long the cartel was in existence).³ However, such an approach can be misleading since some cartels exist for years but have limited impact on prices. Measuring a cartel’s duration also can be “complicated,” especially if it exhibits intermittent periods of relatively competitive pricing.⁴ In contrast, Bolotova develops an econometric model that defines the overcharge (or, the difference between a competitive price for a product and the cartel price for that same product) as a function of a cartel’s market structure and characteristics, while also accounting for certain geographic and industry-specific issues.

To practitioners of economics and law involved in detecting and analyzing cartel behavior, this study yields several important conclusions. Consistent with Posner’s hypothesis, Bolotova confirms that the level of concentration within an industry has a positive effect on a cartel’s overcharge. In other words, an industry with a limited number of participants, each of which

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commands a large share of the market, likely is able to obtain a higher overcharge. Alternatively, a cartel comprised of numerous, small members is likely to have a smaller overcharge. Also consistent with Posner's hypothesis, Bolotova demonstrates that industries characterized by inelastic demand and few available substitute products are candidates for cartelization. Most importantly, her research estimates the impact that certain aspects of cartel behavior are likely to have on a cartel's effectiveness.

Another part of Bolotova's research is her analysis of overcharges that modern cartels (those in existence from 1991 through 2005) were able to obtain. Though the overcharge for any specific cartel deviated significantly, Bolotova determines that the average overcharge for a modern cartel was around 28 percent. Her research also provides guidance, based on certain industry characteristics, as to when one might expect a relatively higher or lower overcharge. This research thus can help attorneys and other antitrust authorities that are hoping to concentrate their resources on investigating industries with the greatest propensity for high overcharges.

Jeffrey Klenk is an economist in the Washington, D.C. office of Econ One where he routinely analyzes the economics of class certification and price-fixing allegations.

While Bolotova's results generally confirm the importance of the Posner Factors, one of her findings appears inconsistent with a widely accepted fact of cartel behavior--namely, that as the number of buyers in an industry increases, the benefit of "cheating" decreases and the risk of that cheating being detected increases.⁵ Based on her data, she instead concludes that an "environment with many buyers provides incentives for cartel members to deviate" from their collusion, thereby resulting in a lower overcharge. This surprising conclusion simply may be the result of how Bolotova chose to model "buyer concentration" and likely should be discounted, pending further research.⁶

As an economist, I frequently use the Posner Factors as an analytical framework for my own investigations into cartel behavior. Particularly in a pre-litigation context, prior to any discovery materials being available, I have found that the Posner Factors provide valuable insight into how anticompetitive behavior might be manifesting itself in a certain industry or market. Even after document production and deposition testimony, the Posner Factors still can provide guidance as to how to review and analyze those materials. The results contained in Bolotova's article affirm such an approach.

¹ Richard Posner, *Antitrust Law: An Economic Perspective*, Chicago: The University of Chicago Press, 1976, pp. 55-62. An article by George Stigler ("A Theory of Oligopoly," *The Journal of Political Economy* 72 (February 1964), pp. 44-61) also analyzes some of the factors "governing the feasibility of collusion."

² Yuliya Bolotova, "Cartel Overcharges: An Empirical Analysis," *Journal of Economic Behavior and Organization*, 70 (2009), pp. 321-341.

³ An article by Margaret Levenstein and Valerie Suslow ("What Determines Cartel Success?" *Journal of Economic Literature* 44 (March 2006), pp. 43-95) provides an overview of some of these previous studies.

⁴ Levenstein and Suslow at pp. 45 and 54.

⁵ Stigler's article extensively addresses the risks of "secret price-cutting," especially in regard to buyer concentration (see, for example, the discussion at p. 47).

⁶ Bolotova adopted a "categorical variable" for measuring buyer concentration (or a variable that can have a numeric value ranging from one to three, depending on decreasing levels of concentration). Without knowing how Bolotova chose to categorize buyer concentration, it is not possible to determine the accuracy of this particular result.