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NEW RESEARCH PROVIDES INSIGHT INTO INVESTIGATING CARTEL BEHAVIOR

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.

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. Some commentators recently have

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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.

By Daniel Flores, Economist, Econ One, Los Angeles, CA

CAN NEWSPAPERS BE SAVED?

Some commentators recently have proposed that newspaper publishers should be allowed to jointly agree to begin charging for their online content, which now is almost universally offered for free.

Reporting and commenting on current events is certainly a costly endeavor. Every newspaper would like to charge for its online content to cover costs and avoid going out of business.

The fundamental problem is that one newspaper alone cannot start charging for its online content--readers quickly would shift to other newspapers offering that content for free. Indeed, even powerhouse The New York Times gave up its attempt to charge for online content.

A successful move away from free online content could occur if newspapers jointly agreed to start charging for that content at the same time. Unfortunately for newspaper publishers, such agreements to limit competition are illegal under our antitrust laws. Thus, commentators argue, newspapers should be granted an antitrust exemption--the argument goes that while price-fixing agreements harm consumers, it is better to have consumers pay more for reading the news than to have no news to read once all newspapers have gone out of business.

There are two main reasons against granting an antitrust exemption to newspapers. First, it simply would not work. Even if all newspapers agreed to charge for online content, consumers would be able to easily shift to other online sources for news and commentary--e.g., cnn.com, bbc.co.uk, The Huffington Post, the Drudge Report or Greg Mankiw's and Brad DeLong's economics blogs, just to name a few.

Second, it is bad policy and bad economics to stop enforcing antitrust laws whenever an industry is not doing well. If we allow newspapers to fix prices,



then shouldn't we also allow colleges, airlines, car manufacturers, or any other industry going through difficult times to fix prices? A more sensible solution for industries experiencing turmoil would be to identify the origin of their trouble(s) and to figure out ways to survive--and thrive--in a competitive environment.

The reality is that there has been a fundamental shift in the way that news is distributed. Forty years ago, the newspaper in which you read about the moon landing was probably edited and printed no more than a few dozen miles from your home. The high cost of transporting newsprint in a timely manner naturally limited the scope of newspaper markets. As a result, every city could have its own newspaper, which could operate without worrying about competition from another city. An Angelino walking into the 1960s equivalent of Starbucks would have been shocked to see copies of The New York Times next to the cash register!

Now fast-forward four decades. Technology has made it possible to be able to read newspapers published thousands of miles away, radically expanding the size of the market any one newspaper can reach.

Economists have developed models that explain what happens when markets expand. On one side, a larger market makes it possible to produce more units at a lower cost, especially in industries with fixed production costs, such as newspaper publishing--the cost of sending a reporter to Antarctica to write an article on global warming is the same, whether the

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article is read by 1,000 or 100,000 people.

On the other side, the larger markets will overlap each other, so there may not be enough room for all the producers. For example, the newspaper industry could evolve from 100 small markets each served by 2 newspapers (or 200 newspapers in total) to a single large market with just 20 newspapers. In this example, 180 newspapers would disappear, which certainly is bad news for the people who used to work for them. But, at the same time, readers would have access to 10 times as many newspapers as they used to have.

The winners in this situation are readers, who gain access to more newspapers reporting more news from around the world at a lower cost per reader.

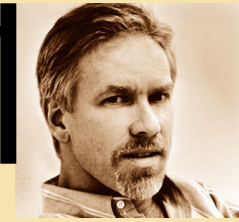
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Newspapers of the future still will have to generate enough revenue to cover their costs. Public radio offers a model that newspapers could explore and adopt. Even though everyone can listen to them for free, many listeners find the news and stories broadcast by NPR, PRI, and local stations compelling enough to merit their financial contribution. Similarly, online readers could be given the opportunity to contribute 1, 2, or 5 cents when reading a story. With a potential readership of millions of people around the world, great pieces of reporting and opinion could generate significant streams of revenue for newspapers.

In the end, great content and innovative ways to help pay for the news--not antitrust exemptions -will save the newspapers of the 21st century.

Some economists live in the books.
We think the real world has a better view.





In re: TriCor Direct Purchaser Antitrust Litigation

The plaintiffs in this case are a class of direct purchasers of the brand-name prescription drug Tricor. They alleged that the defendants violated antitrust laws by improperly delaying the market entry of cheaper generic substitutes to Tricor (which is used to treat high cholesterol).

Econ One was retained by the plaintiffs' counsel to opine regarding class certification issues and the calculation of damages. Dr. Jeffrey Leitzinger submitted three expert reports and was deposed twice in this matter. The first report related to class certification issues which included: (1) the likely impact of a delay in generic competition on the class; (2) the availability of economic methodologies and evidence, common to all class members, that would demonstrate impact in the form of overcharges; and (3) whether overcharge damages could be calculated on a class-wide, aggregate basis using reliable methodologies. Dr. Leitzinger also submitted an initial report and a rebuttal report addressing relevant market and market power, as well as aggregate class overcharge damages. The direct purchaser class claims were settled prior to trial and Dr. Leitzinger submitted a proposed allocation plan for damages to the court in support of the settlement. The court approved both his damages and allocation methodologies as fair and reasonable.

Realtime Data, LLC d/b/a IXO v. Citrix Systems, Inc., et al.

In this ongoing matter, the plaintiff is a technology licensing company that owns a number of patents relating to data compression for storage devices. Its claims against Citrix relate to methods of use as opposed to apparatus claims, meaning that the sale of Citrix's products does not, in and of itself, constitute infringement. As such, Citrix has not been accused of direct infringement, but rather of inducing infringement by end users.

Econ One has been retained by counsel for Citrix to calculate royalty damages stemming from the sale of Citrix's accused products. In conducting his analysis,

Dr. Charles Mahla was asked to account for the likely infringement by end users when calculating the royalty base. Additionally, because a substantial percentage of Citrix's sales of the accused products were made to users outside the U.S., Dr. Mahla also recognized that royalty damages would be limited to sales to those end users within the U.S. This approach is consistent with a recent en banc ruling from the U.S. Court of Appeals for the Federal Circuit in *Cardiac Pacemakers, Inc and Guidant Sales Corp., et al. v. St. Jude Medical, Inc., and Pacesetter, Inc.* The Court in that case ruled that damages cannot be assessed against an alleged infringer of method claims if those methods are practiced outside of the U.S. To date, Dr. Mahla has submitted an expert report and provided deposition testimony.

Realtime Data, LLC d/b/a IXO v. Expand Networks, et al.

The plaintiff in this case alleged that Expand's line of internet optimization products infringed several patents relating to the compression of different types of information. Expand claimed that the patents covered only a particular compression strategy which Expand either could have eliminated altogether or simply replaced with alternative compression algorithms at little additional expense.

Econ One was retained by counsel for Expand to opine about reasonable royalty. Dr. Phil Johnson determined the size of the reasonable royalty that likely would have resulted from a hypothetical negotiation between the parties given Expand's possible alternatives. Dr. Johnson submitted an expert report and provided deposition testimony in this matter.

In re: TFT-LCD Antitrust Litigation

In this case, the plaintiff class includes direct purchasers of TFT-LCD panels, which are used in products ranging from cell phones to televisions. The plaintiff class also includes direct purchasers of finished products from the defendants that contain TFT-LCD panels. The

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defendants are Japanese, Korean, and Taiwanese makers of TFT-LCD panels. The plaintiffs allege that the defendants conspired to fix the prices of the panels and products containing the panels at artificially high levels.

Econ One was retained to direct and conduct analysis for an outside expert relating to class certification issues. Dr. Phil Johnson supervised and directed this complex analysis, which involved numerous large and diverse transaction datasets produced by the defendants. Dr. Johnson and his team employed sophisticated econometric tools to demonstrate the relationships between prices of disparate types of products. Regression analysis was used to demonstrate a workable damages model, as well as to show the impact of increased panel prices on the defendants' finished product prices.

RoDa Drilling Company, et al. v. Richard Siegal, et al.

The plaintiffs in this case contributed substantial sums of money to an oil and gas investment program created and managed by the defendants based upon defendants' representations of: (1) prior success with other investment programs; (2) the high returns to be achieved through the proposed investment program; and (3) the substantial tax advantages that the plaintiffs would receive. The plaintiffs alleged that this investment program failed to generate either the high returns or substantial tax advantages represented by the defendants. The plaintiffs also alleged that the defendants breached their fiduciary duties in their ongoing management of the investment program.

Econ One was retained by counsel for plaintiffs to analyze damages for fraud and misrepresentation, breach of contract, and breach of fiduciary duty. Dr. Jeffrey Leitzinger submitted an initial expert report as well as two supplemental expert reports. He also provided deposition testimony and was scheduled to testify at trial. The parties settled just prior to trial.

Thompson, et al., v. Northrop Grumman Ship Systems, Inc.

This case began as a class action but was denied

class certification, resulting in a group of 79 African American plaintiffs who are current or retired employees of the Northrop Grumman Ship Systems (NGSS) shipyard in Pascagoula, Mississippi (a.k.a., the Ingalls Shipyard). This shipyard builds ships for the U.S. Navy and U.S. Coast Guard, and is the largest employer on the Gulf Coast. The 79 plaintiffs are now individually suing NGSS alleging systemic patterns of racially biased personnel decisions, including pay and promotion opportunities, as well as a hostile work environment.

Econ One was retained by The Legal Aid Society – Employment Law Center, co-counsel for the plaintiffs, to provide expert analysis regarding liability and back pay damages. Dr. Louis Lanier analyzed 14 years of personnel data from the shipyard, to uncover whether there were racially biased patterns of employment outcomes. Dr. Lanier submitted two expert reports addressing liability. He has been deposed and provided testimony as to the existence of statistically-significant racial patterns in both pay and promotion outcomes to the disadvantage of African American employees. Dr. Lanier also has submitted several expert reports and provided testimony regarding back pay damages for individual plaintiff claims.

Jim Hood, Attorney General ex rel. State of Mississippi v. Microsoft Corporation

The state of Mississippi sued Microsoft in connection with allegedly anticompetitive actions taken by Microsoft towards its competitors in the operating system market, as well as towards nascent competition from Netscape Communications Corp.'s Navigator web browser and Sun Microsystems, Inc.'s Java programming platform.

Econ One was retained by counsel for the plaintiffs to analyze both liability issues and damages. Since many of the relevant issues had been litigated previously, Econ One's effort also involved the review and analysis of numerous prior federal, state, and private lawsuits against Microsoft. Dr. Jeffrey Leitzinger submitted an expert report and provided deposition testimony in this matter. Prior to trial, the case settled for \$100 million.

By Todd Nelson, Senior Consultant, Econ One, Washington, D.C.

ESTIMATING DAMAGES IN EMPLOYMENT DISCRIMINATION/WRONGFUL TERMINATION MATTERS

Although the stock market was up 7.5 percent from January to September 2009, it appears that continued business downsizing, layoffs, and a poor labor market will lead to another increase in employment discrimination/wrongful termination lawsuits in the coming year.

Employees who are terminated during good labor markets are less likely to sue for discrimination, while former employees who have extended periods of unemployment and suffer economically for a longer period of time may be more inclined to file wrongful termination claims. Seasonally adjusted initial unemployment claims in 2009 averaged over 606,000 per week from January to the end of August, an increase of 190,000 per week on average over 2008 numbers. Continuing weekly claims for unemployment benefits have topped 6 million since the first week in April 2009. The unemployment statistics and sheer number of jobs lost with little noticeable job growth make the labor market prime for wrongful termination lawsuits.

Given these statistics, it appears that wrongful termination suits will continue to rise, and the need for good economic advice from an expert will remain an important aspect of any attempt to seek redress for a perceived wrong.

Many wrongful termination claims involve allegations of discrimination. In recessionary times like those that we face today, an analysis and review of broader economic measures of firm health is necessary to distinguish between unavoidable terminations and those that are properly labeled discriminatory. By completing a thorough and objective analysis, the expert can examine the fact pattern and

identify whether other factors were involved in the alleged discrimination.

In this way, the expert can distinguish between real discrimination and recession-related downsizing. In addition, by reviewing industry statistics and trends, the local economy, and job market forces, the expert can help provide evidence supporting or refuting a discrimination claim. While plaintiffs and defendants will likely disagree about the true root cause of the plaintiff's termination, a thorough and well-reasoned analysis of the economic circumstances surrounding the dismissal is vital to either party's success in prosecuting or defending these types of lawsuits.

Good advice often hinges on the quality of the information available from the client. In order to estimate damages in a wrongful termination suit, the expert must gather specific case information to consider in his/her analysis--some of which comes from the plaintiff(s) and some of which comes from the defendant(s). Such information includes the basic facts like date of termination, length of service, date of birth, age at termination, sex, race, and level of educational attainment. Job-specific information also will be needed, such as earnings while employed, a list of benefits, and information on employer-paid contributions to retirement or 401(k) plans. Any information from the defendant(s) about positions at the company that are similar to the position held by the plaintiff(s), or information about the earnings/benefits of a replacement worker also can prove useful. These data, along with publicly available information relating



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to alternative job opportunities, unemployment, wage rate increases, and interest rates, can then be used by the expert in an analysis of estimated losses over the dismissed worker's expected work life. Typically, damages are computed from termination to the date of trial and, where appropriate, from the date of trial to the end the plaintiff's work-life expectancy. Should a plaintiff fully mitigate her harm from the termination, the damage period may end prior to expected retirement. Even if this should occur, if a terminated

worker's retirement earnings are affected, an analysis of those losses is also conducted.

With consensus predictions showing that the unemployment rate in the United States will continue to rise through 2010, we can expect to see more wrongful termination claims in 2009 and 2010. When computed properly and objectively, the analysis and computation of wrongful termination damages is relatively straightforward. By analyzing relevant economic data, the expert can develop powerful conclusions regarding the charges of employment discrimination.

Mr. Nelson is a senior consultant in the Washington D.C. office of Econ One. He has experience computing and rebutting wrongful termination damages and has testified as an expert in wrongful termination matters.

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