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FRAGMENTATION VS. CONSOLIDATION OF SECURITIES TRADING EVIDENCE FROM THE OPERATION OF RULE 19C-3

Throughout the history of federal securities regulation there has been a debate between those who have sought to consolidate the trading of securities in a single marketplace and those who object to such efforts as nothing more than attempts at monopolization. Each side claims to advance the interest of investors. Those who favor consolidation argue that trading costs are minimized when all trading interest in a given security is funneled to a single marketplace. Those who oppose consolidation argue that competition is the most effective agent to reduce trading costs and that beneficial effects of unrestrained competition would more than offset any theoretical cost reductions from consolidation. An experiment begun in 1980 by the Securities and Exchange Commission (SEC) sheds some light on this debate.

Prior to 1980, rules of each securities exchange required the exchange members to trade exchange-listed securities only on the floor of an exchange. No member could trade exchange-listed securities over-the-counter (OTC). In 1980, the SEC adopted Rule 19c-3 forbidding the exchanges from applying these rules to any stocks newly listed after April 26, 1979 (the date Rule 19c-3 was proposed). In effect, the SEC created two distinct groups of stocks: those for which the exchange restrictions applied and those for which the exchange restrictions did not apply. By comparing the cost of trading for the two groups of stocks, the competing views of consolidation can be tested.

The first attempt to analyze the effects of Rule 19c-3 on trading costs was presented in a report published by the SEC in August 1981. The data available for analysis in this report were simply insufficient to resolve the debate. Only one study of the effects of Rule 19c-3 has been published since the 1981 SEC report. A study by Kalman J. Cohen and Robert M. Conroy, published in 1990 but using data from 1981-1983, used regression analysis to filter out the effects on the percentage bid-ask spreads (the difference between the best available bid price and the best available ask price) of characteristics not related to Rule 19c-3. These effects include trading volume, stock price, the stock's "beta," and the number of non-exchange member market makers. Cohen and Conroy then examined the portion of the spreads unexplained by these four variables and found a significant difference between stocks that were traded OTC by exchange members and those that were not. From this Cohen and Conroy concluded that Rule 19c-3 reduced spreads by increasing competition. Cohen and Conroy also found that Rule 19c-3 caused an increase in the returns variance. Ultimately, Cohen and Conroy concluded that Rule 19c-3 has both good and bad effects, and the net effect is not clear.

Since 1983 the composition of exchange-listed stocks has changed dramatically. As a result of the turnover in New York Stock Exchange (NYSE) listings since 1983, about 60 percent of stocks listed on the NYSE are now subject to Rule 19c-3. The evidence is now ripe for review. An analysis of data from the trading of NYSE stocks during 1995 indicates that when stocks with similar fundamental characteristics are compared, there is no significant difference between

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the bid-ask spreads or the return variances of the two groups of stocks. In other words, neither side was right.

That the evidence does not support either proponents or opponents of Rule 19c-3 is not surprising. The exchange rules that prohibit members from trading OTC do not prevent a member from trading on another exchange or non-members from trading listed stocks OTC. Thus, a stock freed from an exchange's restrictions does not move from the realm of enforceable monopoly to the world of unfettered competition. Rule 19c-3 simply alters a term in the private contract between exchange members that otherwise binds each member to relinquish his membership before competing with the exchange of which he is a member. Before the adoption of Rule 19c-3 OTC dealers competed with the exchanges, and that competition would continue if Rule 19c-3 were rescinded. Moreover, if there were profits to be made by competing with the exchanges, and there were some unexplainable lack of available OTC dealers, exchange members would relinquish their memberships to earn those profits.

There is no reason to expect to find lower trading costs for stocks subject to Rule 19c-3. The competition that constrains trading costs for these stocks is the same as the competition that constrains trading costs for the other stocks. It should not be a surprise, therefore, to find no evidence that Rule 19c-3 causes trading costs to be less than they otherwise would be. Nevertheless, this finding is contrary to that of prior researchers. More importantly, it raises questions about the benefits of regulation, perhaps not just for securities markets.

Senior Economist Jeffry Davis was formerly Director of Economic and Policy Research of the Securities and Exchange Commission. Mr. Davis' report on his study of Rule 19c-3 (with co-author Lois Lightfoot of the SEC) is scheduled to appear in the April 1998 issue of The Journal of Law & Economics.

CALCULATING DAMAGES IN A CONSPIRACY CASE

In conspiracy cases, a distinction must be drawn between the intent of the conspirators and their actual success in carrying out the conspiracy. Even if a conspiracy has been admitted, there is no inherent reason to believe that it was as successful as the conspirators intended it to be. This distinction is of considerable importance in calculating damages. A standard statistical analysis in a conspiracy case may provide further evidence of the existence and scope of a conspiracy. It may also be the only tool which can, without motive or bias, illuminate the ultimate success, or lack thereof, of a conspiracy.

A properly constructed damages analysis must be unbiased with regard to any allegations or admissions on the part of the conspirators. In a recent case, conspirators admitted to a decade-long attempt to allocate contracts for a product sold to a certain buyer. Thus, although the intended actions of the alleged conspirators are not in question, the extent of any actual damages is. The plaintiff's damages analysis compared the prices charged for various orders by non-conspiracy vendors to the prices charged for similar items by the conspiracy vendors. Damages were calculated based on the difference in prices between the two groups, controlling for some of the other features of the contracts.

Plaintiff's assumption of the existence and modus operandi of the conspiracy, however, leads to subtle biases in the analysis of the price data. For example, certain smaller contracts were excluded from the analysis, presumably because fixing prices on these smaller dollar amounts was "not worth the trouble." Also, several relevant years of the data (i.e., the early years of the conspiracy) were excluded on the grounds that they did not show evidence of the conspiracy, and thus must not have been involved in the conspiracy. Exclusion of the earlier years on the grounds that they indicate no difference in price, however, biases the results in favor of a finding of a price differential in the latter years. In one analysis in which no competitive benchmark was available, the plaintiff assumed that the conspirators behaved as a monopolist with regard to their pricing policies. In fact, they might have sought to conceal themselves by charging much less than the monopoly price.

The most important underlying assumption in the plaintiff's damages analysis is that the conspiracy vendors overcharged the plaintiff relative to a homogeneous pool of non-conspiracy vendors. There are, however, numerous economic reasons to expect

heterogeneity among the vendors, none of which were accounted for in the plaintiff's analysis. Allowing for this heterogeneity among the non-conspiracy vendors reveals that the plaintiff paid no more on average for contracts procured from the conspiracy vendors than from any other vendors. Thus, by assuming that they would find positive damages, the plaintiff's analysis was biased in favor of that finding. Notwithstanding the intent of the alleged conspirators, the data do not indicate any substantial evidence of a successful conspiracy.

One portion of the available data that was not utilized in the plaintiff's analysis with regard to one of the vendors is information on contracts that went through the plaintiff's formal bid process and were thus "shielded" from the conspiracy. This contract bid process should have ensured that these contracts were competitively priced. However, an important issue not addressed in the plaintiff's analysis is the extent to which, the conspiracy aside, the procurement process ensured that the plaintiff would be the beneficiary of competition among its vendors. Statistical analysis reveals that on average the formally bid contracts were actually valued at no less than other contracts, whether the other contracts were part of the conspiracy or not. Thus, the same data that arguably supported the plaintiff's claims as well as substantial damages raise serious doubts about whether plaintiff's procurement policy could take advantage of competition among its vendors absent any conspiracy.

The importance of remaining unbiased regarding the damages caused by a conspiracy, regardless of the facts that may be known about the intent of such a conspiracy, is clear. A straightforward analysis of the pricing data in this case found no evidence that any of the vendors allegedly involved in the conspiracy against the plaintiff were protected from competition. In addition, the same data set used to generate substantial damage estimates also demonstrated that there were reasons to question the overall competitiveness of the plaintiff's bidding process, notwithstanding the conspiracy.

Senior Economist Matthew G. Mercurio specializes in empirical analysis using large data bases, survey and panel data, and time series data. His areas of experience include damages, telecommunications, and finance.

MARKET POWER SURVEILLANCE IN ELECTRIC POWER AUCTION MARKETS

Daily and hourly auction markets for electric energy are being created in California, New England, New York, and the Pennsylvania-New Jersey-Maryland region. These markets are run by nonprofit power exchanges or transmission grid operators and regulated by the Federal Energy Regulatory Commission (FERC). In addressing requests to deregulate prices for transactions in these markets, FERC must deal with the fact that under some circumstances sellers may have market power. FERC has been urged to rely, at least in part, on power exchange and grid operators to monitor bidder behavior, market prices, and other variables to detect and deter the exercise of market power. In 1997 FERC approved market-based pricing for California based partially on commitments that power exchange and grid operators will attempt to detect and constrain anticompetitive behavior.

In recent comments on the New England application for market-based pricing, the Federal Trade Commission (FTC) staff recommended against substantial reliance on monitoring plans because of difficulties in detecting anticompetitive behavior and in preventing the exercise of market power through behavioral rules. FTC staff recommended that FERC consider structural measures, which include reductions in concentration in ownership and control of generating capacity, to diminish incentives of generating companies to raise prices above competitive levels.

Power exchange monitoring plans are aimed primarily at detecting attempts to increase market prices above competitive levels by reducing generation of energy. A seller may exercise market power in an exchange by raising the bid prices at which it offers various amounts of energy above the bids it would submit if it had no ability to increase market prices. Also, a seller may withhold output of a plant.

Unlike regulation with which utilities are familiar, monitoring plans would require exchanges to determine whether markets are operating competitively and stop abuses. Under the plans, exchanges would attempt to detect and reduce the

SELECTED EI CASES IN 1997

Norfolk Southern/CSX Acquisition of Conrail: Working with Zuckert, Scoutt & Rasenberger and Skadden, Arps, Principal Barry C. Harris testified for Norfolk Southern before the Surface Transportation Board. The acquisition creates competition between Norfolk Southern and CSX in some areas that were previously served only by Conrail.

North Shore Health System/Long Island Jewish Medical Center Merger: Principal Margaret E. Guerin-Calvert testified for the merging parties in this case brought by the Department of Justice. The court rejected DOJ's market definition and allowed the merger to proceed. The hospitals were represented by Winston & Strawn; Stroock, Stroock & Lavan and Collier, Shannon & Rill.

Defense Mergers: Principal Philip B. Nelson led the economic analysis of Raytheon's acquisitions of Texas Instruments and Hughes. The mergers were completed after some divestitures. Raytheon was respresented by White & Case in both transactions.

Psychiatric Hospitals Litigation: Senior Vice President John H. Preston testified on behalf of defendant Psychiatric Institutes of America/National Medical Enterprises in a monopolization case brought by Timberlawn Psychiatric Hospital in Dallas, Texas. The jury found in favor of the defendants on all counts. The case was litigated for the defendants by Haynes & Boone and Gibson, Dunn & Crutcher.

Northern States Power/Wisconsin Electric Merger: Senior Vice President Mark W. Frankena and Vice President John R. Morris analyzed the effects of this merger on electric power markets and testified on behalf of intervenors. After rejection by the Federal Energy Regulatory Commission, the merger was abandoned. Intervenors were represented by Arent, Fox, Kintner, Plotkin & Kahn; Morgan, Lewis & Bockius; Nixon, Hargrave, Devans & Doyle; Sidley & Austin; and Stafford, Rosenbaum, Rieser & Hansen.

Harrisburg Radio: Vice President Michael G. Baumann and Principal Barry C. Harris worked with Latham & Watkins and Kaye, Scholer, Fierman, Hays & Handler to examine allegations that radio advertising prices increased in Harrisburg after Dame Media acquired some stations from Barnstable. The Department of Justice dropped the investigation after it was shown that advertising prices had not increased.

exercise of market power in circumstances that are often different from those in which antitrust authorities attempt to do this. In urging FERC to rely on monitoring plans to limit market power in complex hourly energy markets, proponents of these plans are asking FERC to conclude that the power exchange and grid operators will deal adequately with daunting tasks with which neither utility regulators nor antitrust authorities have much experience.

The New England monitoring plan offers examples of how market operators might attempt to detect market power. The principal example appears to be based on an assumption that anticompetitive behavior will be limited to high-demand periods. The plan assumes that the market operator will be able to detect anticompetitive behavior by observing differences in bidding patterns between periods of high and low demand. In addition, the plan appears to be based on an assumption that an exercise of market power would be significant only if the output of a number of large generating plants would be eliminated, and hence that the exercise would be easy to observe. In fact, market power abuses may occur during low- and moderate-demand periods. In any case, sellers may adopt complex bidding strategies that would prevent exchange staffs from observing any simple patterns. Also, a reduction in output equivalent to the energy from a single moderate size generating unit may cause a significant price increase.

It is likely that if there are market power abuses, they will often go undetected by power exchange monitoring plans. Exchange staff are likely to have great difficulty discriminating between anticompetitive behavior and legitimate business activity. Indeed, the New England plan emphasizes that "the same behavior that might sometimes suggest physical or economic withholding is often normal, beneficial and pro-competitive." As a result, it appears likely that if a power exchange is determined to detect a high share of anticompetitive behavior, it will also challenge a substantial amount of behavior that is procompetitive. If, on the other hand, a power exchange is determined not to deter procompetitive behavior, it will fail to challenge a substantial share of anticompetitive behavior. Thus structural approaches that reduce the profitability of efforts to raise prices have clear advantages.

Senior Vice President Mark W. Frankena is a former Deputy Director for Antitrust in the FTC's Bureau of Economics. His evaluation of the New England monitoring plan was submitted to FERC by the Maine Attorney General in January 1998.