Financial Economists Roundtable

Statement on The Structure of the Nasdaq Stock Market

September 18, 1995

The Nasdaq Stock Market has recently come under intense scrutiny because of charges that some of its dealers have colluded to inflate the bid-ask spreads of Nasdaq-listed stocks. These charges of collusion were largely precipitated by a study by Professors William Christie and Paul Schultz, which was first reported in the press on May 26, 1994 and ultimately published in the December 1994 Journal of Finance. Subsequent to this study, both the Department of Justice and the Securities and Exchange Commission began broad investigations of Nasdaq.

Christie and Schultz find that many Nasdaq stocks exhibit a paucity of odd-eighths quotes (quotes that end in one, three, five, or seven eighths) and conclude that "individual market makers implicitly agree to maintain spreads of at least $0.25 by not posting quotes on odd eighths."

At its annual meeting, the Financial Economists Roundtable discussed some of the issues involved in this controversy and reached the following conclusions:

First, the Financial Economists Roundtable is skeptical that an effective and sustainable collusive arrangement is possible among Nasdaq dealers. Both economic theory and history provide substantial support for the belief that effective collusive arrangements generally require that two conditions be met: (1) there be a small number of firms, and (2) there exist significant barriers to entry. Neither of these conditions is met in Nasdaq. The number of dealers is large (as many as 60 dealers trade the more active stocks) and entry is easy (any existing securities firm that meets minimum capital requirements can become a dealer in any stock by merely notifying Nasdaq).

Second, the publicly available economic evidence reviewed by the Financial Economists Roundtable, including that developed by Christie and Schultz in their original study and in a follow-up study, does not provide convincing evidence of the existence of an effective collusive arrangement. In particular, the shortage of odd-eighth quotes in Nasdaq stocks does not necessarily imply the existence of an effective collusive arrangement on Nasdaq.

Third, the evidence to date suggests, nonetheless, that the displayed and effective bid-ask spreads of Nasdaq stocks are, on average, substantially wider than those of comparable NYSE stocks. The difference between Nasdaq and NYSE spreads also cannot be accounted for by economic factors such as share price, trading volume, company size, volatility of return, and the degree of adverse information facing dealers. In interpreting this evidence, it is important to note that bid-ask spreads are only one dimension of quality in the execution of an order. The effect of wider Nasdaq spreads may be mitigated for customers who pay no commissions when their broker is acting as a dealer or who are easily able to negotiate prices inside the spread (such as institutional investors).

Fourth, the Financial Economists Roundtable evaluated various structural features and practices of Nasdaq that might contribute, both separately and together, to the wider spreads on Nasdaq and agreed that the following are the most important:

- Limit orders priced within the best bid and offer usually do not improve the quote on Nasdaq, while they do on the NYSE. Nasdaq is a dealer market with the best bid and offer being determined by the bids and offers of the individual dealers, but there is no requirement that a Nasdaq dealer display price-improving limit orders in the quotation system.

- Preferencing and internalization of order flow may reduce the incentive for a dealer to improve bids or offers. Order flow is preferenced when a broker agrees to route its retail customer order flow to a particular dealer (often in return for a payment), and the dealer agrees to execute that order flow at prices no worse than the best bid or offer, as required by Nasdaq rules. Order flow is internalized when a dealer trades with its own retail customers at prices no worse than the best bid or offer of any dealer. If a large fraction of the order flow is preferenced or internalized, a dealer's incentive to improve quotes is reduced because posting better prices may not attract additional order flow. The preferencing and internalization of order flow also exist in other markets, such as the NYSE, but not to the same degree.

- Alternative interdealer markets for Nasdaq-listed stocks may reduce the incentive for dealers to post quotes that will narrow the displayed spread. An example is SelectNet, which is an interdealer trading system that allows dealers to trade among themselves at prices different from those available to the general public. Such parallel markets permit dealers to adjust their inventory without the need to offer better quotes over Nasdaq.

In summary, wile Nasdaq spreads are substantially wider than spreads of comparable NYSE stocks, this fact alone is not sufficient to infer the existence of a collusive arrangement among Nasdaq dealers. The Financial Economists Roundtable identified several structural features of the Nasdaq market that could cause wider spreads: treatment of limit orders, order preferencing arrangements, and the availability of alternative interdealer markets. In addition, the large number of Nasdaq dealers and the absence of significant entry barriers for potential dealers together provide a substantial obstacle to the creation of an effective and sustainable collusive arrangement among Nasdaq dealers.

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