

Plenary 3

Recent Evolution in Securities Market Price Formation Mechanisms

Mr. Edward A. Kwalwasser

Group Executive Vice President – Regulation, New York Stock Exchange

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A Changing Market Model Edward Kwalwasser

This is a very appropriate time to discuss this extremely important topic. In February of this year, the SEC proposed its Regulation NMS ("National Market System"). The comment period runs out next Monday. This is the latest step in a long line of proposals that the SEC has made dealing with the National Market System that began in 1975 when the U.S. Congress authorized the SEC to facilitate a National Market System. The three major steps taken were (1) the creation of the Intermarket Trading System which linked all of the markets in the U.S. so that an order in any market would trade with the best price for that security no matter where the other side was trading, (2) the creation of the Consolidated Trade Association which provided that all markets would have their quotes carried by any vendors that sought to carry the quotes of any of the individual markets, so that the best bid and offer could be seen by all market participants and finally (3) it established DTC-NSCC, a centralized clearance and settlement system, that could clear and settle trades that took place across markets as well as those that took place within a single market. As a result all U.S. markets were linked for both trades and quotes with a centralized clearance and settlement system. The system continued almost unchanged until the SEC adopted its limit order display rule in 1996. The rule was a result of findings that some dealers in the NASDAQ market were failing to post customer limit orders and thereby failing to disclose the best price in the marketplace. As a direct result of this rule, ECNs gained traction and became a force in the marketplace and garnered a large share of trading in certain stocks, but their bids and offers were not displayed to the market. Because of the large amount of trading taking place in these venues, the SEC passed Regulation ATS in 1998 which said that large ECNs (those with 20% or more of the volume of any stock) needed to put their quotes in the marketplace and be part of the NMS.

The result of more automated market participants was the growth of day trading, momentum trading and other forms of arbitrage that require extremely fast execution capabilities. It has also led to high cancellation rates, almost 73% of all orders in our marketplace in 2004, and higher short-term volatility. And because of the way Market Data revenue is distributed, it has also led to more locked and crossed markets because different marketplaces have paid for limit orders and therefore encouraged certain participants to place limit orders in one market rather than trade with displayed limit orders in other markets.

In 2001, the U.S. markets went to a decimal system of pricing. This led to a quantum increase in capacity needs for the markets as quotes narrowed but displayed liquidity at any price narrowed even more, whereas quotes narrowed by about 30%, size decreased by about 70%. To give you some idea of the results of these changes, I will give you a few examples from our marketplace.

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Trades increased from 288,000 per day in 1998 to 1,300,000 in 2003. Quotes increased from 495,000 in 1998 to 4,600,000 per day in 2003. System orders increased from 840,000 in 1998 to 9,200,000 per day in 2003 and our cancellation rate rose from 24% in 1998 to 66% in 2003. This all happened while volume only increased from 664,000,000 per day in 1998 to 1,350,000,000 in 2003.

At the request of our customers whose trading activity relied on fast executions, the NYSE started its own automated execution system within the auction market in 2002. This system was limited to trades of 1,000 shares or less, but would only executed trades if we were the best priced market for that order at the time it arrived. Currently this automated trading represents in excess of 7% of our overall volume, which is more volume than the trading in our stock by all the ECNs combined. We also distributed our limit order book to vendors to become more transparent so that everyone would have the opportunity to review what was on the book before they placed an order.

At the same time many of our competitors, as well as some of our customers, were asking the SEC and Congress to require that all U.S. markets be fully automated.

To deal with these and other market structure problems, the SEC has proposed Regulation NMS. The underlying basis for NMS is that automated markets should be permitted to trade through non-automated

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markets but that automated markets should not be able to trade through better-priced orders on other automated markets.

It is said that although non-automated markets may have the best price shown at any particular time, as our market does over 90% of the time in our stocks, that because of the amount of time it takes to reach those prices and the large number of price changes that take place in a very short period of time, that those prices are not really reachable and therefore should not slow up a fast market that may have a worst price but that price is more certain. This in theory would preserve the price setting mechanism while at the same time permitting fast

access to quotes while providing a benefit to limit orders on the book of such markets, so as to increase liquidity and transparency.

We believe that it is possible to weld an automated market with a floor base model into a hybrid market that is able to deal with complex orders at the same time that it offers automated executions to those that want them.

We believe, based upon empirical studies, that such a market model can dampen volatility at the same time it would provide automated execution. A review of all 48 companies that moved from NASDAQ, an automated market, to the NYSE a hybrid market in the last two years – looking at 60 days before they moved and 60 days after shows that volatility decreased an average by 50%.

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We intend to accomplish this hybrid market by permitting all incoming orders that come into our system to automatically execute against our exposed bid or offer, no matter what the size is, if it is the best in the system, but we would not permit the order to sweep the book. That is we would not permit the order to reach into the book for limit orders that were not the best bid or offer, thereby dampening volatility. We would also continue to have floor brokers who could trade with the automated market through electronic means when appropriate or with other floor brokers and/or the specialist when advantageous to their customers.

We believe that this is consistent with our constituents' needs as well as a vibrant national market system.