customer by settlement, together with a written notice that the official statement in final form will be sent to the customer within one business day of receipt. Thereafter, once the dealer receives the official statement in final form, it must send a copy to the customer within one business day of receipt. If no official statement in preliminary form is being prepared, the dealer would only be obligated to deliver by settlement the written notice regarding the official statement in final form and to send the official statement in final form upon receipt.[9]

The amendment provides an alternate method of compliance with Rule G–32 in the case of Exempt VRDOs where the final official statement is either unavailable or incomplete. However, in those limited circumstances where dealers may in fact receive the official statement in final form in sufficient time to deliver it to customers by settlement (*e.g.*, if an issuer approves completion of the official statement in final form prior to execution of the purchase contract), dealers must comply with the existing provision of the rule by delivering the official statement in final form to the customer by settlement. If the final official statement is available or if the issuer approves the final official statement prior to settlement, then the existing provision of the rule would control. The dealer's compliance in this case would not be optional.

III. Discussion

The Commission believes the proposed rule change is consistent with the Act and the rules and regulations promulgate thereunder.[10] Specifically, the Commission believes that approval of the proposed rule change is consistent with Section 15B(b)(2)(C)[11] of the Act. This proposed rule change should remove any potential timing discrepancies concerning dealer and customer receipt of official statements. The rule clarifies dealers' disclosure requirements; if a dealer receives an official statement from the issuer, concerning exempt VRDOs, then it must deliver this official statement within one business day of receipt.

The Commission recognizes the Board's effort to make the disclosure requirements in Rule G–32 consistent with the requirements delineated in Rule 15c2–12 under the Act. The Commission understands that the use of securities with a demand feature (*e.g.* VRDOs) allows issuers to acquire the necessary financing while protecting against interest rate risk. These types of obligations permit the issuer to convert outstanding debt from short-term variable rate notes to long-term fixed rates.[12] It is possible that the maturities or reset dates of these VRDOs could be so brief (*i.e,* one day) that the issuer is unable to provide an official statement at settlement. Given the sophisticated nature of these instruments and the rapidity with which they can be converted, the Commission urges dealers to facilitate full and timely disclosure to investors. While the requirements of Rule 15c2–12 are inapplicable to these obligations, sound business practice and general antifraud provisions of the federal securities laws should dictate access to and disclosure of information covered by this rule.

IV. Conclusion

For the above reasons, the Commission believes that the proposed rule change is consistent with the provision of the Act, and in particular with Section 15B(b)(2)(C).

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[13] that the proposed rule change (SR–MSRB–98–04), is hereby approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[14]

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 98–19445 Filed 7–21–98; 8:45 am]

BILLING CODE 8010–01–M

[9] As in the current rule, if no official statement in final form is being prepared, such dealer would deliver to the customer by settlement the official statement in preliminary form, if any, and written notice to the effect that an official statement in final form is not being prepared. If neither a final nor a preliminary official statement is being prepared, the dealer would only be obligated to deliver by settlement the written notice to the effect that no official statement in final form is being prepared.

[10] The Commission has considered the proposed rule's impact on efficiency, competition and capital formation. The amendment conforms the requirements of MSRB Rule G–32 with those of SEC Rule 15c2–12. Making the rules consistent lessens the dealers' burden of complying with one rule while attempting to avoid violating the other. Also, the dealer's procedural and operational efficiency should be enhanced as the date for determining compliance will be that of receipt of some type of notification from the issuer, which should make for ease of recordkeeping and review. 15 U.S.C. 78c(f).

[11] Section 15B(b)(C) requires the Commission to determine that the Board's rules are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in municipal securities, to remove impediments to and perfect the mechanism of a free and open market in municipal securities, and, in general, to protect investors and the public interest.

[12] *See supra* note 5 at p. 28810.

[13] 15 U.S.C. 78s(b)(2).

[14] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–40211; File No. SR–NASD–98–21]

Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Approving a Proposed Rule Change to Permanently Expand the NASD's Rule Permitting Market Makers to Display Their Actual Quotation Size

July 15, 1998.

I. Introduction

On March 5, 1998, the National Association of Securities Dealers, Inc. (''NASD'' or ''Association'') through its wholly-owned subsidiary, The Nasdaq Stock Market, Inc. (''Nasdaq''), filed with the Securities and Exchange Commission (''Commission'' or ''SEC'') a proposed rule change pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Exchange Act''),[1] and Rule 19b–4 thereunder,[2] to amend NASD Rule 4613(a)(1)(C) permanently to allow market markers to quote their actual size by reducing the minimum quotation size requirement for all Nasdaq securities to one normal unit of trading (''Actual Size Rule'' or ''ASR'').[3] The Commission issued the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4

[3] Concurrent with the March 5, 1998, filing, NASD Economic Research published an economic study entitled ''Evidence from the Pilot Expansion on November 10, 1997, and the Market Stress of October 27 and 28, 1997'' (''March 1998 Study''). This study followed an earlier study the NASD conducted to analyze the effects of the Actual Size Rule entitled ''Effects of the Removal of Minimum Sizes for Proprietary Quotes in The Nasdaq Stock Market, Inc.'' (''June 1997 Study''). The findings the NASD made in each of these studies are discussed below. Both studies were made publicly available through the NASD's web site.

On January 10, 1997, the Commission approved an NASD proposal to implement the Actual Size Rule on a pilot basis from January 20, 1997 through April 18, 1997. Exchange Act Release No. 38156, 62 FR 2415 (January 16, 1997) (SR–NASD–96–43). Under the initial three-month pilot, Nasdaq market makers could quote in minimum sizes of 100 shares in the 50 Nasdaq securities subject to mandatory compliance with Exchange Act Rule 11Ac1–4 (''Limit Order Display Rule''). The remaining Nasdaq securities were still subject to the existing minimum quotation display requirements for proprietary quotes.

On April 15, 1997, the Commission approved an NASD proposal that extended the 50-stock pilot from April 18, 1997 to July 18, 1997. Exchange Act Release No. 38512, 62 FR 19373 (April 21, 1997) (SR–NASD–97–25). On July 18, 1997, the Commission approved the NASD's request to extend the 50-stock pilot from July 18, 1997 to December 31, 1997. Exchange Act Release No. 38851, 62 FR 39565 (July 23, 1997) (SR–NASD–97–49).

On October 29, 1997, the Commission approved the NASD's proposal to extend the pilot from December 31, 1997 through March 27, 1998, and to proposed rule change for comment on March 16, 1998.[4] For the reasons discussed below, the Commission is approving the proposed rule change.[5]

II. Background

A. The SEC's Order Handling Rules and the Actual Size Rule Pilot Program

On August 29, 1996, the Commission promulgated a new rule, the Limit Order Display Rules,[6] and adopted amendments to the Quote Rule [7] which together are designed to enhance the quality of published quotations for securities and promote competition and pricing efficiency in U.S. securities markets (collectively, the ''Order Handling Rule'').[8] The SEC's Limit Order Display Rule generally requires a market maker to display customer limit orders that (1) are priced better than a market maker's quote, or (2) add to the size associated with a market maker's quote when the market maker is at the best price in the market.[9] The Limit Order Display Rule gives investors the ability to directly advertise their trading interest to the marketplace, enabling them to trade inside the current bid-ask spread and thereby compete with market maker quotations and narrow the size of the bid-ask spread. The Order Handling Rules amended the SEC's Quote Rule to require a market maker to display in its quote any better priced orders that it places into an ECN such as the NASD's SelectNet service (''SelectNet'') or Instinet.[10] Alternatively, instead of updating its quote to reflect better priced orders entered into an ECN, a market maker may comply with the display requirements of the ECN Rule through the ECN itself, provided the ECN (1) ensures that the best priced orders entered by market makers into the ECN are included in the public quotation, and (2) provides ''equivalent'' access [11] to the ECN for brokers and dealers that do not subscribe the ECN, so that those brokers and dealer may trade with orders entered into the ECN.[12]

On January 10, 1997, the Commission approved certain amendments to Nasdaq's Small Order Execution System (''SOES'') and SelectNet to help implement the Order Handling Rules and accommodate changes in the Nasdaq market that these rules brought about. For instance, the Commission approved, on a temporary basis, the Actual Size rule for the first 50 securities subject to the Order Handling Rules. Under the Actual Size Rule pilot, Nasdaq market makers were only required to display a minimum quotation size of one normal unit of trading (100 shares) when quoting solely for their own proprietary accounts in the first 50 securities. Market makers could display a grater quotation size if they chose to (or if required to do so by the Limit Order Display Rule). For Nasdaq securities other than the first 50, minimum quotation size requirements of 1,000, 500, or 200 shares continued to apply.[13] Neither the minimum quotation size requirements nor the Actual Size Rule negate a market maker's obligation to display the full size of a customer limit order. If a market maker is required to display a customer limit order for 200 or more shares, for example, it must display a quote size reflecting the size the customer's order, absent an exception to the Limit Order Display Rule.

In its finding with the Commission proposing the initial Actual Sizes Rule pilot, the NASD contended that changes to the dealer market brought about by the Order Handling Rules rendered mandatory minimum quote sizes unnecessary. The NASD also contended that economic theory suggested the Actual Size Rule could result in long-term benefits such as increased competition. Finally, the NASD's noted that empirical research indicated that neither investors nor the Nasdaq market would be adversely impacted by the Actual Size Rule. Specifically, the NASD argued that the Actual Size Rule would give market makers more flexibility to manage risk and quote prices more favorable to small retail investors. In addition, the NASD argued that requiring a minimum commitment of market maker capital while allowing ECNs and investors (including professional ''day traders'') to display their orders without imposing a similar minimum size commitment on them could severely impair market makers' ability to set competitive quotations.

April 11, 1997, the NASD filed a proposal with the Commission to extend the pilot until at least December 19, 1997, and to expand the number of stocks in the pilot to include the next 100 stocks subject to the Order Handling Rules.[14] In that filing, the NASD indicated that its research department had studied the effects of the Order Handling Rules and the Actual Size Rule and found that: (1) The Order Handling Rules dramatically improved the quality of the Nasdaq market by, among other things, narrowing quoted spreads; (2) among those securities subject to the Order Handling Rules, there was no appreciable difference in market quality between stocks subject to the Actual Size Rule and stocks subject to mandatory quote size requirements; and (3) implementation of the Actual Size Rule did not significantly diminish the ability of investors to receive automated executions through SOE, Select Net, or proprietary systems operated by broker-dealers.[15] Based on these findings, the NASD concluded that mandatory quote size requirement were no longer needed.[16]

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expand the pilot to 150 Nasdaq securities. Exchange Act Release No. 39285, 62 FR 59932 (November 5, 1997) (SR–NASD–97–26). On March 25, 1998, the Commission approved the NASD's proposal to extend the 150-stock pilot from March 27, 1998 through June 30, 1998. Exchange Act Release No. 39799, 63 FR 15467 (March 31, 1998) (SR–NASD–97–26).

[4] Exchange Act Release No. 39760 (March 16, 1998) 63 FR 13894 (March 23, 1998) (File No. SR–NASD–98–21).

[5] The text of the rule, as adopted, is as follows:

NASD Rule 4613 Character of Quotations

(a) Two-Sided Quotations

(1) No change.

(A)–(B) No change.

(C) A registered market maker in a security listed on The Nasdaq Stock Market must display a quotation size for at least one normal unit of trading (or a larger multiple thereof) when it is not displaying a limit order in compliance with SEC Rule 11Ac1–4, provided, however, that a registered market maker may augment its displayed quotation size to display limit orders priced at the market maker's quotation.

[6] 17 CFR 240.11Ac1–4.

[7] 17 CFR 240.11Ac1–1.

[8] Exchange Act Release No. 37619A (September 6, 1996) 61 FR 48290 (September 12, 1996). With respect to Nasdaq securities, the Order Handling Rules were implemented according to the following schedule: 50 Nasdaq securities became subject to the rules on January 20, 1997; 50 more securities became subject to the rules on February 10, 1997; and an additional 50 securities became subject to the rules on February 24, 1997. The remaining Nasdaq securities wee phased in by October 13, 1997. Exchange Act Release No. 38490 (April 9, 1997) 62 FR 18514 (April 16, 1997); and Exchange Act Release No. 38870 (July 24, 1997) 62 FR 40732 (July 30, 1997).

[9] In the alternative, a market maker may immediately execute the order or delivery the order to an exchange or national securities association sponsored system or an electronic communications network (''ECN'') that complies with the ''ECN Display Alternative,'' as described below.

[10] This amendment is known as the ''ECN Rule.''

[11] Access must be ''[e]quivalent to the ability of any broker-dealer to effect a transaction with an exchange market maker or OTC market maker pursuant to the rules of the exchange or association to which the [ECN] supplies such bids and offers.'' SEC Rule 11Ac1–1(c)(5)(ii)(B)(*1*).

[12] This alternative is known as the ''ECN Display Alternative.''

[13] In particular, NASD Rule 4613(a)(2) required each market maker in a Nasdaq issue other than those in the first 50 to enter and maintain two-sided quotations with a minimum size equal to or greater than the applicable SOES tier size for the security (*i.e.,* 1,000, 500 or 200 shares for Nasdaq National Market securities and 500 or 100 shares for Nasdaq SmallCap Market securities).

[14] *See* Exchange Act Release No. 38513 (April 15, 1997) 62 FR 19369 (April 21, 1997) (SR–NASD–97–26).

[15] *Id.*

[16] Release No. 39285, *supra* note 3, 62 FR at 59936–37. The NASD subsequently amended the

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On June 3, 1997, the NASD supplemented its proposal with its first comprehensive study of the potential impact of the Actual Size Rule on stocks for which the mandatory size minimum quote requirements were relaxed (''pilot stocks''). The results of the study indicated that implementing the Actual Size Rule did not adversely affect the market quality of pilot stocks. The June 1997 Study analyzed standard measures of market quality, including spread, volatility, liquidity, and depth. In addition, the study examined investors' ability to access market maker capital through SOES and proprietary automatic execution systems. The study suggested that for pilot stocks, investors continued to have reasonable and substantial access to market maker capital through automatic execution systems.[17] To provide the public with an opportunity to review and comment on the June 1997 Study, the Commission extended the comment period on the NASD's proposal until July 3, 1997.[18] On July 17, 1997, the NASD amended the filing at the Commission's request to extend the pilot until March 27, 1998, to give the Commission more time to evaluate the economic studies on the proposal and to review comments on the June 1997 Study.[19]

Notwithstanding the results of the June 1997 Study, some commenters expressed concerns about the proposal to expand the Actual Size Rule. In particular, some commenters noted that the pilot had been limited to only 50 Nasdaq securities and that these securities generally represent the most liquid Nasdaq stocks.[20] In addition, the proposed expansion of the Actual Size Rule would apply to those 100 stocks that were subsequently phased in under the Order Handling Rules. Those stocks were also drawn from the most liquid Nasdaq stocks. Thus, it was argued that, even an expanded pilot would still be skewed toward larger, more active issues.

On September 15, 1997, in response to these concerns, the NASD amended its proposal to change the selection methodology for the next group of securities to be subject to the pilot to provide an enhanced sample that better represents the entire Nasdaq market.[21] Specifically, the remaining Nasdaq National Market issues were divided into deciles based on average daily dollar volume. One hundred and ten stocks were then chosen by randomly selecting approximately the same number from each decile.[22] As expanded, the pilot provided additional data across a range of securities, thereby permitting an enhanced evaluation of the effects of the Actual Size Rule pilot.

On October 29, 1997, the Commission approved the NASD proposal, as amended, to expand the Actual Size Rule pilot to include 150 stocks and to extend the pilot through March 27, 1998.[23] In approving the proposal, the Commission stated its belief that the preliminary data indicated that the pilot had not resulted in any degradation to Nasdaq market quality, and that the Actual Size Rule appeared to be a reasonable means to provide market making obligations that reflect the new market dynamics produced by the Order Handling Rules.[24] Nonetheless, the Commission decided that it would be appropriate to consider additional data that could be gathered using the more representative sample of Nasdaq stocks before determining whether to expand the Actual Size Rule to the entire Nasdaq market.[25]

The Commission asked the NASD to continue evaluating the effects of the Actual Size Rule and identified several areas to be analyzed.[26] The Commission also asked the NASD to compare data among deciles of Nasdaq stocks, focusing attention on active versus inactive stocks. In response, the NASD produced a second study (''March 1998 Study'') which addressed the effects of the Actual Size Rule, as expanded.

B. Findings of the NASD's March 1998 Study

In the March 1998 Study, the NASD sought to determine the impact of the Actual Size Rule on Nasdaq market quality and on investors' access to automatic execution systems (including SOES). To do so, it compared securities subject to the Actual Size Rule's 100-share minimum quote size with a control group of peer stocks still subject to mandatory minimum quote size requirements. The March 1998 Study compared these two groups of securities after the Order Handling Rules had been fully implemented, thus, quote size was meant to be the only significant difference between the two groups of securities.

The study compared measures of market quality for a group of stocks that joined the pilot (pilot stocks) to a control group of peer stocks (non-pilot stocks) that remained subject to mandatory minimum quote sizes.[27] Like the June 1997 Study, the March 1998 Study concluded that the Actual Size Rule had no material effect on Nasdaq market quality or investors' access to automatic execution systems (including SOES).[28]

1. The Actual Size Rule's Impact on the Quality of the Nasdaq Market

The NASD analyzed several measures of market quality in the March 1998 Study: spread, volatility, depth, and liquidity. Each of these measures is discussed below.

a. Spread Measures

The NASD used two methods to calculate spreads: quoted dollar spread [29] and effective spread.[30] The ''quoted dollar spread'' of the pilot stocks fell 3.8% from a time before the Actual Size Rule was implemented to a time when it applied to the securities in the sample. The quoted dollar spread for the non-pilot stocks fell 4.8% over the same period. Based on a multivariate

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filing to change the extension date from December 19, 1997 to March 27, 1998, and to change the selection methodology for the next group of 100 stocks to be subject to the pilot. The methodology used to determine the next 100 securities is discussed further below.

[17] *See* Exchange Act Release No. 38720 (June 5, 1997) 62 FR 31856 (June 11, 1997).

[18] *Id.*

[19] *See* Exchange Act Release No. 38872 (July 24, 1997) 62 FR 40879 (July 30, 1997).

[20] *See, e.g.,* letter from David K. Whitcomb, Professor of Finance, Rutgers University, to Jonathan Katz, Secretary, SEC, dated July 3, 1997.

[21] *See* letter from Robert E. Aber, Vice President and General Counsel, Nasdaq, to Katherine A. England, Assistant Director, SEC, dated September 15, 1997.

[22] One hundred and ten stocks were chosen to replace four of the original stocks that were delisted, to accommodate possible delistings, and to ensure that 150 stocks would be available under an expanded Actual Size Rule pilot.

[23] Release No. 39285.

[24] *Id.* at 59936.

[25] On March 25, 1998, the Commission approved a rule change proposed by the NASD to extend the pilot from March 27, 1998 through June 30, 1998. Exchange Act Release No. 39799, 63 FR 15467 (March 31, 998) (SR–NASD–97–26).

[26] In particular, the Commission asked the NASD to analyze: (1) the number and composition of the market makers in each stock; (2) the average aggregate dealer and inside spread; (3) the average spread of each market maker by stock; (4) the average depth by market maker (including limit orders) and any change in depth over time; (5) the fraction of volume executed by each market maker that is at the inside quote per stock; and (6) the amount of volume required to move the price of each security one increment. Release No. 39285, *supra* note 3, at 62 FR 59937.

[27] The study reviews data for 18 trading days between October 13, 1997 and November 7, 1997, (October 27, 1997 and October 28, 1997, are excluded and analyzed separately) and compares this data to 20 trading days between November 10, 1997 and December 9, 1997.

[28] *See* March 1998 Study at 84–89.

[29] Quoted dollar spread is the difference between the inside ask and inside bid. Individual dollar spreads were weighted by the amount of time each spread was in effect for the day, *i.e.,* the spread's duration.

[30] Effective spread is twice the absolute difference between the trade price and the bid-ask midpoint (''BAM''). Thus, the effective spread is intended to account for trades executed at prices inside the spread.

regression analysis performed by the NASD, which controlled for stock-specific changes in volume, price, and interday volatility, the NASD concluded that the decrease in the quoted dollar spreads of the two groups of securities is statistically insignificant.

The ''effective spread'' (for trades of all sizes) of the pilot stocks fell 2.6% post-implementation, while the effective spread for the non-pilot stocks fell 5.7%. The NASD performed a multivariate regression analysis and concluded that the difference between the declines in the effective spreads for the two groups of stocks is statistically insignificant. Thus, under either spread measure, the NASD's statistical data suggests that the Actual Size Rule did not have a material adverse impact on the spreads for ASR securities compared to non-ASR securities over the period of the study.

b. Volatility

Intraday volatility decreased slightly between the pre- and post-implementation periods for both the pilot stocks and non-pilot stocks. Mean volatility fell 5.8% for the pilot stocks and 3.4% for the non-pilot stocks. Again, the NASD performed a multivariate regression analysis and concluded that this difference is statistically insignificant. Thus, the NASD's data suggests that implementing the Actual Size Rule did not materially adversely impact the intraday volatility of ASR securities compared to non-ASR securities over the period of the study.

c. Depth

The NASD's study also looked at the number of shares Nasdaq market makers were willing to quote at the inside market using a measure called ''mean aggregate quoted depth.'' Using this measure, the amount of depth provided by market makers at the inside market dropped by 5.2% for the pilot stocks, and by 5.8% for the non-pilot stocks. When ECN quotes at the inside are included, mean aggregate quoted depth fell by 2.0% for the pilot stocks and by 2.7% for the non-pilot stocks. Again, based on multivariate regression analysis performed by the NASD, these differences are not statistically significant. Thus, the NASD data suggests that the Actual Size Rule did not materially adversely impact the depth of pilot securities compared to non-pilot securities over the period of the study.

Furthermore, neither the mean number of market makers nor the mean number of market makers at the inside changed significantly for either stock group after implementation.

d. Liquidity

While liquidity is an important element of market quality, it is difficult to measure empirically. A common liquidity measure is ''effective depth'' [31] or the amount of volume it takes to move the spread a predetermined amount in one direction or the other. A refinement to effective depth, called ''normalized effective depth,'' makes the measure more precise across varying stock prices.[32] Using this measure of liquidity, the NASD concluded in the March 1998 Study that the Actual Size Rule did not materially adversely impact the liquidity of pilot securities compared to non-pilot securities over the period of the study.

2. Actual Size Rule's Impact on Investors' Access to SOES

In the March 1998 Study, the NASD also analyzed the potential impact of the Actual Size Rule on investors' access to market makers through SOES or broker-dealers' proprietary automatic execution systems. According to the NASD, the data suggests that implementation of the Actual Size Rule has not materially adversely impacted investors' ability to access Nasdaq market makers through these systems.[33] Specifically, the NASD found that 98.5% of SOES orders in the pilot stocks were fully executed at a single price after these stocks became subject to the Actual Size Rule. The NASD also found that for the non-pilot stocks, 98.9% of SOES orders were fully executed at a single price, a statistically insignificant difference. The average size of an executed SOES order in the pilot stocks fell by 18 shares after the expansion of the pilot program; for the non-pilot stocks, the average size of an executed SOES order fell by 23 shares. The NASD concluded that this is a statistically insignificant difference.

The NASD also studied broker-dealer automatic proprietary execution systems. The March 1998 Study analyzed data from nine broker-dealers (''Participant Firms'') [34] and found that these systems constitute a significant proportion of trading activity by the Participant Firms. The March 1998 Study found no evidence that the Actual Size Rule had any effect on these systems' activity. Specifically, the mean number of automatic execution trades as a percentage of all trades for Participant Firms increased from 37.8% to 38.4% for the pilot stocks and from 34.5% to 36.2% for the non-pilot stocks. The mean automatic execution volume as a percentage of all volume for the pilot stocks increased from 30.8% to 31.2%; for the non-pilot stocks, it increased from 27.8% to 29.5%. These differences were not statistically significant. Based on the March 1998 Study, the NASD concluded that the implementation of the Actual Size Rule did not materially adversely impact the average SOES trade size or investors' access to market makers through SOES or broker-dealer proprietary systems in pilot versus non-pilot stocks over the period of the study.

The extreme market conditions of October 27 and 28, 1997, provided another test of the potential impact of the Actual Size Rule on the Nasdaq marketplace. On October 27, 1997, the Nasdaq Composite Index fell by 7.02% and cross-market circuit breakers were implemented. On October 28, 1997, the Nasdaq Composite index declined by 4.37% by 9:41 a.m. before rebounding and ending up 4.43% for the day. Both days experienced record trading volume. The March 1998 Study compared the market quality (as measured by spreads, volatility, depth, and liquidity, as discussed above) and investor access to SOES (and other automatic execution systems) for a group of the original pilot stocks with that of a group of peer stocks subject to minimum quote size requirements. The NASD concluded in the March 1998 Study that the Actual Size Rule had no material adverse impact on market quality during this period of intense market stress. Further, the NASD concluded that investors' ability to access market maker capital for pilot stocks versus non-pilot stocks was not materially adversely impacted during this period.

III. Comment Letters

The Commission received 274 comment letters from numerous entities, including market makers, full service broker-dealers, order entry firms, SOES traders, academics, individual investors, professional associations, and a national securities exchange. Of these, 53 favored the Actual Size Rule, 218 opposed it, and three did not clearly state a position. Proponents included representatives of the market maker and institutional trading communities. Among opponents were numerous individuals associated with day trading

[31] *See. e.g.*, March 1998 Study at 78.

[32] These measures are described fully in the NASD's March 1998 Study at 77–84.

[33] Roughly 85% of orders in the tested group of pilot stocks during the periods analyzed by the March 1998 Study were for the tier size maximum, *i.e.*, 1,000 shares. This proportion did not materially change after these stocks became subject to the Actual Size Rule.

[34] The participant firms were: Goldman, Sachs & Co.; Herzog, Heine, Geduld, Inc.; Knight Securities, L.P.; Bernard L. Madoff Investment Securities; Mayer & Schweitzer, Inc.; Prudential Securities, Inc.; PaineWebber, Inc.; Smith Barney, Inc.; and Troster Singer Stevens Rothchild Corp.

firms and users of the SOES system. Although opponents of the proposal raised concerns about the effects of the Actual Size Rule on access to executions and market maker capital as well as the proposal's impact on market factors including liquidity, volatility, and spreads, proponents countered that the proposal would enable market makers to manage risk better and to provide capital to the market more efficiently. The NASD also submitted a letter addressing the comments the Commission received.[35]

The Commission has considered all of the comments it received on the proposal. Due to the large number of comment letters, a complete, separate summary of comments has been prepared and is available in the public file. The most significant comments are discussed below.

A. Comments Favoring the Actual Size Rule

Of the 274 comment letters the Commission received, 53 support permanent expansion of the Actual Size Rule. Among these are letters from trade groups such as the Security Traders Association (''STA''),[36] the Securities Industry Association Industry Association (''SIA''),[37] and the Investment Company Institute (''ICI''),[38] as well as numerous brokerage firms.[39] The Commission also received a comment letter from American Century Investment Management (''ACIM'') supporting the proposal.[40] Generally, a number of market participants stated that the NASD's data and analysis—including its conclusions based on both economic theory and empirical results—is consistent with the marketplace's experience with the Actual Size Rule.[41]

Proponents of the Actual Size Rule contend that the rule contributes to a more efficient and transparent market—a market that, ultimately, benefits investors. Several commenters state that the Actual Size Rule aids their market making activities and allows them to better serve their customers.[42] One firm states that it has ''become more active in the stocks under the Pilot program due to [its] ability to properly manage [its] capital risk.'' [43] Several commenters note that by cutting barriers to entry, the Actual Size Rule should encourage market maker participation, including that of smaller firms.[44] Further, several commenters believe that market makers' ability to commit capital more freely will enhance pricing efficiency and the competitiveness of dealer quotations, and increased price competition and the entry of more market makers will help investors.[45]

In addition, one commenter, whose company's stock was in the pilot, cites benefits to his company's stock from pricing efficiencies.[46] Another commenter feels the Actual Size Rule is in the best interest of investors, including those households owning shares of equity mutual funds.[47] An institutional firm commented that the Actual Size Rule helps give a true look at the depth and quality of markets and helps to ensure fairer pricing of institutional blocks.[48]

In addition to creating a market that better represents trading interests, commenters feel the Actual Size Rule can make the Nasdaq market more competitive with other securities markets. One commenter notes that the Actual Size Rule could remove competitive burdens on Nasdaq market participants by leveling the playing field between primary markets in the United States.[49] Another commenter notes that if Nasdaq market making requirements were made more equivalent to other equity markets that do not have a 1,000 share quotation minimum, Nasdaq market makers could more efficiently price stock absent a multitude of ''unnatural and unwanted positions.'' [50]

One commenter posits that if, as studies show, market quality is maintained under the Actual Size Rule, Nasdaq should not be the only equity market forcing market makers to deploy capital to create artificial liquidity.[51]

Commenters also considered the impact of the Actual Size Rule on the Nasdaq market and the need for the Actual Size Rule in the context of more general changes to markets. Some commenters discussed what they perceive as a move from a quote to an order driven market due to institution of the Ordering Handling Rules.[52] For some, this perceived movement removes the need for a mandatory minimum size requirement.[53] Others note that mandatory minimum quote size gave investors access to the market, but now, through the Limit Order Display Rule, they have access by being able to impact stock prices and the size of quotes by displaying their limit orders.[54] In sum, several commenters feel that the Order Handling Rules make mandatory size requirements unnecessary by, among other things, providing a new source of liquidity.[55] Several commenters therefore believe that in this new, more order driven market, if a market maker mut display size greater than all other market participants, it may avoid being at the inside, which could reduce liquidity.[56]

Commenters also evaluated the Actual Size Rule's impact on market quality. For instance, several commenters argued that the Actual Size Rule enhances liquidity. Notwithstanding the NASD's data to the contrary, some commenters believe that liquidity improved for pilot stocks and can be further improved by expanding the Actual Size Rule.[57] One commenter believes that if the Actual Size Rule is permanently expanded, market makers should be able to make markets in more issues.[58] Another states that lower barriers to entry and fewer reasons to exit will increase liquidity.[59]

Some commenters believe that mandatory size requirements (which

[35] *See* NASD Response.

[36] The STA describes itself as having approximately 7,700 individual members.

[37] The SIA describes itself as being composed of nearly 800 securities firms, employing more than 380,000 individuals. The SIA also states that its members include investment banks, broker-dealers, and mutual fund companies that are active in all markets and in all phases of corporate and public finance.

[38] The ICI describes itself as the national association of the investment company industry. Founded in 1940, its membership includes 6,976 mutual funds, 447 closed-end funds, and 10 sponsors of unit investment trusts. Its mutual fund members represent more than 63 million individual shareholders and manage more than $5 trillion.

[39] The Chicago Stock Exchange, Inc. (''CHX'') also submitted a letter, although it neither favored nor opposed adoption of the Actual Size Rule. *See* CHX Letter.

[40] ACIM Describes itself as managing over $70 billion for investors in the Twentieth Century, Benham, and American Century families of mutual funds.

[41] *See, e.g.,* Merrill Letter; Credit Suissee Letter; J.P. Morgan Letter; STA Institutional Letter; ICI Letter.

[42] *See, e.g.,* M.H. Meyerson Letter, Crawford, Letter.

[43] *See* M.H. Meyerson Letter.

[44] *See, e.g.,* JP Morgan Letter; Ohio Letter; Marino Letter; Merrill Letter; Knight Letter; 4/29 and 4/1 STA Letter; Jefferies Letter; Howard Letter' STANY Letter; and Weeden Letter.

[45] *See, eg.,* Cantor Letter; Morgan Letter; Knight Letter; STANY Letter; Credit Suisse Letter; Salmon Letter; Suntrust Letter; 3/6 and 4/1 Walters Letter; and Morgan Keegan Letter.

[46]

[47] *See* ICI Letter.

[48] *See* Weeden Letter.

[49] *See* Credit Suisse Letter.

[50] *See* Interstate Letter.

[51] *See* STA Institutional Letter.

[52] *See* Kinnard Letter; R. King Letter; Marino Letter; Singh Letter; STA Institutional Letter; and Lehman Letter.

[53] *See, e.g.,* NAIB Letter; Morgan Letter; Knight Letter; Salomon Letter; Morgan Keegan Letter; 4/29 and 4/1 STA Letters; Interstate Letter; STANY Letter; STA Institutional Letter; ICI Letter; Wood Letter; Credit Suissee Letter; and ITAP Letter.

[54] *See* Mortgan Letter; Interstate Letter; and Barone Letter.

[55] *See, e.g.,* M.H. Meyerson Letter.

[56] *See* Kaplowitz Letter.

[57] *See* American Century Letter; Anonymous Letter; and Morgan Keegan Letter.

[58] *See* Ohio Letter.

[59] *See e.g.,* Howard Letter; Lopez-Rodriguez Letter; TD Letter; and STANY Letter.

adoption of the Actual Size Rule would serve to reduce) increase volatility.[60] One commenter compares mandatory size to a free option for professional day traders using SOES that exacerbates the direction and velocity of price moves during times of high volatility.[61] A commenter from a company whose stock was in the pilot stated that when his company's stock became subject to the Actual Size Rule, SOES activity decreased, thus lessening volatility.[62] A similar comment was made by an official of a brokerage firm about securities subject to the Actual Size Rule.[63] Others felt that SOES abuses along with mandatory size cause volatility,[64] and that the Actual Size Rule could help reduce this excess volatility.[65]

Commenters also contemplate the legal justifications for approving the proposal. Some commenters note that neither the Exchange Act nor Commission rules require quote sizes larger than 100 shares.[66] Another notes that since the NASD's research indicates no harm to investors or the market by the Actual Size Rule, the absence of the Actual Size Rule renders market makers less competitive than ECNs and customer orders, neither of which have a minimum size requirement.[67] The commenter contends that this disparity violates Exchange Act Section 15A(b)(9), which prohibits NASD rules imposing burdens on competition that are not necessary or appropriate.[68]

Finally, proponents focus on empirical research from the pilot to support their contentions. Several commenters found the NASD's March 1998 Study reassuring because it found no adverse effects on market quality for the 150 securities subject to the Actual Size Rule pilot.[69] Another commenter notes that the pilot was well documented.[70] Another notes that the March 1998 Study is good because it was conducted after the implementation of the Order Handling Rules and assessed only one significant policy change for the pilot stocks—the implementation of the Actual Size Rule.[71] In addition, the March 1998 Study's finding of no adverse effect on market quality and investor access to capital led a commenter to conclude that the next logical step is an Actual Size Rule for all stocks.[72] In fact, commenters believed that given Nasdaq's findings, no justification exists under the Exchange Act, including Section 15A, for continued mandatory size.[73] Another commenter feels that because the study shows no harm to the market by the Actual Size Rule, no reasonable basis exists for the Commission to adopt larger and more punitive minimum quote requirements for Nasdaq market makers.[74]

B. Comments Opposing the Actual Size Rule

Two hundred and eighteen letters opposed permanent expansion of the Actual Size Rule. Many are from day-traders who regularly place SOES orders. The Electronic Traders Association (''ETA'') [75] and David Whitcomb (''Whitcomb''),[76] Professor of Finance at Rutgers University, also opposed permanent expansion. The positions of ETA and Whitcomb are largely based upon Whitcomb's independent research on the impact of the Actual Size Rule.[77] Whitcomb and ETA each attached to their respective comment letters a December 31, 1997, economic study (''Simaan-Whitcomb Study'') prepared by Yusif Simaan and Whitcomb.[78] This study is discussed in detail in part III.C. below.

Opponents of the Actual Size Rule question the proposal's ability to improve the market's transparency and efficiency. One commenter notes that when the Commission originally approved the NASD's mandatory quote size requirements, it criticized market makers for not quoting for more than 100 shares and believed that a mandatory quote size requirement would give investors greater access to market information on the depth of the market for a particular security.[79] Some commenters expressed concern that market makers underrepresent share size available.[80] Another was concerned that market makers do not fill their entire quoted size.[81]

Some commenters feel that if the elimination of the excess spread rule and the concomitant cut in market maker exposure did not encourage a market maker influx, then the Actual Size Rule will not.[82] Others do not see mandatory size as a barrier to market makers, but a way to eliminate ''fair weather'' market makers,[83] and fell that market do not need an incentive to take risks for which they already receive compensation.[84]

Some commenters view the Actual Size Rule as unfair because it removes a market maker responsibility while market markers continue to receive the same benefits for performing that function. In particular, some commenters note that market markers get several benefits, including the ability to sell short, special margin requirements, prestige and advertisement, spreads, and profits, and the possibility of more privileges from new systems in exchange for fulfilling their responsibility of providing liquidity and market stability, especially during volatile markets.[85] Some commenters argue that if the mandatory quote size requirement is eliminated, then market maker benefits also should be discontinued.[86] A commenter notes that market maker advantages allow them to profit or hedge long positions during declining markets, while individual investors rely solely on liquidity from market makers.[87]

Some commenters also worried that the Actual Size Rule could hurt Nasdaq's reputation, perhaps leading investors to turn away from Nasdaq.[88] Some commenters argued that the Actual Size Rule could also discourage

[60] *See* ITAP Letter; and Weeden Letter.

[61] *See* American Century Letter.

[62] *See* Crawford Letter.

[63] *See* Edward Letter.

[64] *See* Crowell Letter; and Weedon & Co. Letter.

[65] *See* NAIB Letter.

[66] *See* Salomon Letter; and TD Letter.

[67] *See* JP Morgan letter; *See also*, Bandler Letter; Barone Letter; Wilson-Davis Letter; M.H. Meyerson Letter; French Letter; Hughes Letter; and Knight Letter.

[68] *See* JP Morgan Letter; *see also* note 73 and accompany text.

[69] *See* Barone Letter; Kinnard Letter; Howard Letter; Lopez-Rodriquez Letter; M.H. Meyerson Letter; SIA Trading Letter; STA Institutional Letter; 4/29 and 4/1 STA Letters; and ITAP Letter.

[70] *See* American Century Letter.

[71] *See* Credit Suisse Letter.

[72] *See* Hughes Letter.

[73] *See* JP Morgan Letter; and Knight Letter.

[74] *See* Credit Suisse Letter.

[75] ETA is an association of about 50 order entry firms and others interested in trading via computer.

[76] Whitcomb is also President and CEO of Automated Trading Desk, Inc. (''ATD''). ATD provides software and services for automated and computer-assisted limit order trading.

[77] The ETA and Whitcomb each submitted several comment letters concerning the Actual Size Rule proposal and each incorporated these letters by reference in the last submission. The Commission has carefully considered all of the comment letters the ETA and Whitcomb submitted, but for ease of reference, only the last letter each submitted has been cited.

[78] Simaan is an Associate Professor of Finance at Fordham University. Simaan's research was supported by a grant from ETA. ATD supplied the data for and supported Whitcomb's research.

[79] *See* CHX Letter.

[80] *See* Klug Letter; Paracha Letter; and White Letter.

[81] *See* Leland Letter.

[82] *See* 4/2/98 Getz Letter; *see also* Marungo Letter; Williams Letter; Yoon Letter; ETA Letter; and Whitcomb Letter.

[83] *See* G. Hunter Letter.

[84] *See* Ghazi-Moghadam Letter.

[85] *See e.g.*, Andrews Letter; Gardner Letter; Ripoll Letter; Spencer Letter; Teitelman Letter; Thiagarajah Letter; Tieu Letter; Tom Letter; Truong Letter; Woods Letter; and Whitcomb Letter.

[86] *See* Bunda Letter, Klug Letter; and Truong Letter.

[87] *See* 4/2/98 and 3/23/98 Getz Letters.

[88] *See* Carpenter Letter and Dubey Letter.

companies, particularly small, innovative ones, from coming to Nasdaq, for fear that their stocks would not be adequately supported.[89]

Some commenters feel that past and current instances of market maker manipulation militate against giving market makers the benefits of the Actual Size Rule. They worry that the Actual Size Rule system may harm the markets generally by permitting market makers to post small sized quotes during large supply/demand imbalances when depth and liquidity are at a premium.[90] One commenter envisioned market makers manipulating the system to cut risk exposure [91] and another noted that thinly traded issues are the most likely to be subjected to abuse as a result of the Actual Size Rule.[92] Some commenters cite various past events indicating market maker problems like the publication of the Commission's Report Pursuant to Section 21(a) of the Securities Exchange Act of 1934 Regarding the NASD and The Nasdaq Stock Market (''21(a) Report'') and litigation and settlements involving the Nasdaq market and market Makers. Such a history of market maker abuses, they contend, undermines markets maker arguments relating to a competitive disadvantage resulting from mandatory size.[93] Moreover, commenters claims that historic and continuing abuses by market markers counsel against taking a change on the Actual Size Rule or providing further opportunities for manipulation.[94] For example, some commenters suggest that market makers use 100 share ''customer order'' at the inside to hold stocks,[95] and that they hinder the momentum of stock movements and give themselves time to back away from quotes.[96] In addition, some commenters contend that market have modified their trading behavior during the Actual Size Rule pilot and in bigger stocks to mask what may be the true adverse impact of the Actual Size Rule, should the Commission permanently approve it for all Nasdaq stocks.[97]

Opponents of the Actual Size Rule also focused on specific factors related to market quality. For instance, one commenter is uncertain whether the Commission should approve the Actual Size Rule at this time, arguing that liquidity is the near-exclusive function of market marker proprietary trading, unlike at exchanges where liquidity is mostly from persons other than specialists effecting transactions in their own accounts.[98] Some question the basic premise of an order-driven market, indicating that the market still is and needs to be a quote-driven, dealer market.[99]

One commenter contended that in an order driven environment, mandatory quote size requirements coupled with SOES ensure investors receive fair executions in extreme market conditions.[100] Another posited that customer orders cannot sustain the market, especially in times of duress.[101] Even if there is an order-driven market, some commenters reject removing market makers' basic quote size responsibility.[102] Other commenters claimed the NASD shows the ASR does not contribute to the narrowing of market maker spreads.[103] Commenters also expressed concern that the Actual Size Rule will harm market liquidity, perhaps leading to price fluctuations and unfair prices.[104] Commenters also question the NASD's evidence that the Actual Size Rule helps to lower barriers to market maker participation and thus aids liquidity and pricing efficiency.[105] In addition, commenters are concerned that the Actual Size Rule's effect on heavily-traded issues would differ from its effect on thinly-traded issues.[106] One commenter expressed concern about mysterious fluctuations of size with changed volume in particular stocks.[107] There was also concern about lesser known and start up issues where liquidity is low and volatility is high.[108] Some commenters suggest the Actual Size Rule can or does increase volatility.[109] Another commenter notes that volatility is particularly problematic for thinly traded securities.[110] Some commenters emphasize that the Actual Size Rule decreases liquidity in an especially negative way when volatility is high and market makers would likely take actions like dropping to a 100 share size.[111] Commenters worry that during volatile times, large sized orders would be executed at unfair prices on different tier levels as prices rise or fall.[112] Some commenters viewed the Actual Size Rule as legitimizing ''backing away'' by market makers.[113] Some felt the events of October 1997 illustrate the need for market makers to quote mandatory minimum size.[114]

C. The Simaan-Whitcomb Study

Because letters from the ETA and Whitcomb were the only letters that provided empirical data that conflicts with that in the NASD's studies, the Commission thought it appropriate to address these comments in greater detail. The ETA and Whitcomb comment letters make three basic assertions regarding the Actual Size Rule; (1) the body of empirical evidence suggests that both market quality and the ability of investors to use SOES has been adversely affected by the Actual Size Rule; (2) Nasdaq market making is not fully competitive, and hence conclusions that assume marketplace competition are invalid; and (3) the methodology employed in the analyses conducted by the NASD is flawed. Both letters rely heavily on the Simaan-Whitcomb Study, which states that its purpose is to present preliminary evidence on: (1) the percentage of the time that ECNs are alone at the inside bid or offer; (2) the aggregate ''inside'' quotation size of market makers and ECNs; and (3) the ''odd-sixteenths'' quotation behavior of ECNs and selected market makers.

The Simaan-Whitcomb Study first discusses its preliminary findings concerning the percentage of time ECNs are alone at the inside bid or offer.[115]

[89] *See* A. Friedman Letter and Maschler Letter.

[90] *See* Arakawa Letter, Baldante Letter; Bhattacharyya Letter; Cook Letter; and Finn Letter.

[91] *See* Cianfrani Letter.

[92] *See* Carlsson Letter.

[93] *See* Aunio Letter and Samarasinghe Letter.

[94] *See* Downing Letter; Garza Letter; Klarsfeld Letter; Maschler Letter; Rock Letter; Romanow Letter; Rosen Letter; Singh Letter; Taub Letter; Wilson Letter; and Woods Letter.

[95] *See* Gallagher Letter; 4/2/98 Getz Letter; and Haber Letter.

[96] *See* Downing Letter; Mesh Letter; Roffman Letter; Rosenberg Letter; Stolker Letter; and Villanueva Letter.

[97] *See* Gussin Letter; Levin Letter; Nadan Letter; and Romanow Letter.

[98] *See* CHX Letter.

[99] *See* Andrews Letter; Barry Letter; and Davar Letter.

[100] *See* Fennell Letter.

[101] *See* Tom Letter.

[102] *See* Angelica Letter; Atreya Letter; Cianfrani Letter; Gleeson Letter; and Ripoll Letter; *see also* ETA Letter and Whitcomb Letter.

[103] *See* ETA Letter and Whitcomb Letter.

[104] *See, e.g.,* Andrews Letter; Crabb Letter; CHX Letter; ETA Letter; Foster Letter; Gorman Letter; Hollander Letter; M. Kallman Letter; Leffler Letter; Maschler Letter; Nemeroff Letter; Walker Letter; and Whitcomb Letter.

[105] *See* ETA Letter and Whitcomb Letter.

[106] *See, e.g.,* Arakawa Letter; Eisner Letter; Israel Letter; Rock Letter; Rudd Letter; and Williams Letter.

[107] *See* Valentine Letter.

[108] *See Francis Letter.*

[109] *See e.g.,* Downing Letter; Haber Letter; Letter; M. Lu Letter; Teitelman Letter; and Woods Letter.

[110] *See* A. Friedman Letter.

[111] *See e.g.,*Andrews Letter; J. Goldstein Letter; Pak Letter; Teitelman Letter; Wei Letter; Williams Letter; and CHX Letter.

[112] *See e.g.,*Atreya Letter; Pflugfelder Letter; Tom Letter; Truong Letter; Weber Letter; and West Letter.

[113] *See* Barry Letter and Kiefer Letter.

[114] *See e.g.,* Maschler Letter; McDonald Letter; Nadan Letter; Ryan Letter; Verbeke Letter; Weber Letter; Williams Letter; and Yoon Letter.

[115] If one or more ECNs (and no market makers) are the only firms quoting the best bid or offer for a particular security, then ECNs may be said to be alone at the inside (bid or offer) for that security.

The Simaan-Whitcomb Study states that:

On the one hand, this is evidence of the power of the Order Handling Rules, since any market maker filling a retail customer order (*e.g.*, pursuant to a payment for order flow arrangement with the customer's broker) must match the ECN price under ''best execution'' rules. On the other hand, retail customers whose brokers do not have preferencing arrangements with a dealer can be disadvantaged. Most retail brokers do not have direct order entry interfaces with ECNs, and orders sent to Nasdaq's SOES are rejected when no market maker is at the inside. Brokers seeking automated execution of customer orders must use SelectNet to ''preference'' the ECN, a somewhat cumbersome and time-consuming process. In a sense, the percentage of time ECNs are alone at the inside is a measure of a remaining imperfection in the Nasdaq market.[116]

Next, the Simaan-Whitcomb Study posits that the aggregate ''inside'' quotation size of market makers and ECNs (a measure of liquidity) has been harmed by the Actual Size Rule. The Simaan-Whitcomb Study relies on ''aggregate truncated size'' and ''aggregate quoted size'' to measure liquidity. The Simaan-Whitcomb Study claims that the NASD's liquidity measure is flawed for the following reason:

The problem with [using the NASD's liquidity measure] is that infrequent very large bid sizes can have an inordinate impact on sample mean aggregate sizes. *This might be fine if these large quotes were ''real'', but NASD rules permit a dealer to decline to fill an order larger than 1000 shares even if the dealer's quote exceeds the order size.* Thus a more realistic measure of aggregate electronic liquidity is what we call ''Aggregate Truncated Size'', the sum over market makers of the portion of their quote sizes not exceeding 1000 shares. (Footnote omitted, emphasis added.)[117]

The ultimate point the Simaan-Whitcomb Study makes is that

market makers will reduce their quotes on the side of the market that is experiencing stress when they are free to do so. Putting it differently, it appears that mandatory minimum quotation sizes to effectively force market makers to provide more liquidity to the market, especially in times of stress.[118]

D. The NASD's Response to Comments

By letter, the NASD responded to comments submitted with regard to the ASR proposal.[119] The NASD's letter primarily focused on the comments from the ETA and Whitcomb. The NASD argues that those commenters' empirical evidence is ''incomplete,'' and that the Simaan-Whitcomb Study does not appropriately analyze the improved sample provided by the expansion of the pilot program. The NASD also disputes ETA's and Whitcomb's conclusions that the ASR reduced liquidity during extreme market conditions on October 27 and 28, 1997, and that the ASR diminished access through SOES to market maker capital.

The NASD also questions the basis for the commenters' beliefs about the marketplace, particularly the notion that it is not competitive. For instance, the NASD cites a lack of empirical evidence for the commenters' claims that the ASR would increase order flow preferencing. Moreover, the NASD emphasizes the experience of market participants suggesting an increasingly order driven market.

In addition, as discussed below, the NASD points out perceived flaws in the studies producing the research relied upon by Whitcomb and the ETA. Finally, the NASD defends the methodology employed for its own research as being more representative and complete than that used by its detractors.[120]

IV. Discussion

The Commission approved the Actual Size Rule on a pilot basis so that it could assess the effects of the rule on Nasdaq market quality and investor access to automatic execution systems over a several month long period. At the time the pilot was adopted, the Commission noted that it ''preliminarily believes that the proposal will not adversely affect market quality and liquidity'' [121] and that it ''believes there are substantial reasons . . . to expect that reducing market makers' proprietary quotation size requirements in light of the shift to a more order-driven market would be beneficial to investors.'' [122] The Commission also stated that, ''based on its experience with the markets and discussions with market participants, [it] believes that decreasing the required quote size will not result in a reduction in liquidity that will hurt investors.'' [123]

During the pilot, the Commission assessed the potential impact of the Actual Size Rule on the Nasdaq market and on investors over periods of relative market calm as well as over a period of sudden market volatility (*i.e.*, October 27–28, 1997). It also reviewed the NASD's two comprehensive studies on the Actual Size Rule. In these studies, the NASD analyzed the Actual Size Rule's impact on market quality and investors' access to capital, both before and after the full implementation of the Order Handling Rules. The Commission also reviewed studies funded by the ETA and hundreds of comment letters from investors, broker-dealers, trade groups, and others representing all constituencies in the marketplace. Based on this detailed record of empirical data and comments regarding the impact of an expanded Actual Size Rule, the Commission still believes that the Actual Size Rule will not adversely affect the quality of the Nasdaq market. Indeed, the Commission remains convinced that the Actual Size Rule removes a barrier to market making in the Nasdaq market, as well as a requirement that has been rendered unnecessary by the Commission's Order Handling Rules. As a result, the Commission believes that removing Nasdaq's minimum quote requirements is consistent with the Exchange Act. In particular, as discussed below, the Actual Size Rule is consistent with Sections 11A and 15A of the Exchange Act.

In 1990, the Commission approved an NASD proposal to require Nasdaq market makers to quote size ''at least equal to the maximum size of an order eligible for automatic execution in SOES.'' [124] In doing so, the Commission noted that ''[m]arket makers presently are willing to execute trades well in excess of the 100 share size that is typically displayed on NASDAQ'' [125] and that size was not being reflected in their quotes to the public. In approving the proposal, the Commission noted that the minimum quote size requirements could help provide ''a more realistic picture of the actual size of execution available and the depth of the market in each security.'' [126] This rationale for requiring Nasdaq market makers to quote at least 1,000 shares (or 200 or 500 shares for less active stocks) when exchange specialists need only quote 100 shares was pertinent to Nasdaq in 1990 when only market maker quotes established the Nasdaq inside spread and customer limit orders were rarely reflected in market maker quotes. The rationale has been removed by the successful implementation of the Order

[116] Simaan-Whitcomb Study at 6.

[117] *Id.* at 9.

[118] *Id.* at 13.

[119] *See* NASD Response.

[120] *Id.; see also* March 1998 Study at 64 for a detailed description of the methodology the NASD employed.

[121] *Id.*

[122] *See* Release No. 38156, *supra* note 3, 62 FR at 2423.

[123] *Id.* at 2424.

[124] *See* Exchange Act Release No. 28450 (September 18, 1990) 55 FR 39221 (September 25, 1990).

[125] *Id.*

[126] *Id.*

Handling Rules. The Order Handling Rules enable investors' limit orders and limit orders displayed on ECNs to set the Nasdaq inside quote, so that reliance solely on market makers' quotes is no longer necessary. Data has demonstrated that the Order Handling Rules have helped to narrow Nasdaq spreads considerably.[127]

As detailed by the NASD in the March 1998 Study, by permitting dealers to quote their true trading interest, the Actual Size Rule affords market makers more flexibility to manage risk. Removing minimum quote size requirements also will enable market makers to reflect size in their quotations based on business and market factors instead of regulatory imposed minimums. This, over time, should increase the information content of market makers' quotations. Further, requiring market makers to maintain a minimum quote size without imposing a similar commitment on ECNs or investors, which also may display quotes, could impair the ability of market makers to set competitive quotations. Such a result is antithetical to the intent of the Order Handling Rules: That market maker quotes, limit orders, and limit orders displayed on ECNs all compete to set the Nasdaq inside spread. The 1,000 share minimum also can be viewed as a barrier to entry of new firms to market making in Nasdaq securities.[128]

After reviewing the June 1997 Study, the Commission concluded that it ''preliminarily believes that the data indicates that the pilot has not resulted in harm to the Nasdaq market.'' [129] Nevertheless, the commission decided that it would be appropriate to gather further data before determining whether to extend the Actual Size Rule to the entire Nasdaq market.[130] The Commission also noted that certain concerns raised by some commenters could be addressed by extending the pilot and expanding it to 150 securities. The Commission determined that based ''upon the expanded pilot, the Commission will be in a better position to evaluate the impact of the Actual Size rule upon the Nasdaq market.'' [131] The Commission specifically asked the NASD to conduct a second study to analyze market quality measures (*i.e.*, spreads, volatility, depth, and liquidity) as well as investor access to market maker capital. The pilot was expanded to 150 Nasdaq securities on November 10, 1997, and extended to March 27, 1998.[132]

As the Commission requested, in this second study (the March 1998 Study) the NASD analyzed each market quality measure. This expanded pilot study permitted a more definitive comparison of pilot and non-pilot securities as a whole, providing a basis for a final conclusion concerning the Actual Size Rule's effect on Nasdaq securities and its effect on relatively active versus inactive securities. In response to concerns that the Actual Size Rule would cause a ''reduction of liquidity during periods of stress,'' [133] the NASD also included in the March 1998 Study an empirical analysis of trading on October 27 and 28, 1997, a period in which the U.S. securities markets experienced a significant degree of volatility.

The NASD's March 1998 Study led the NASD to conclude that there is no empirical evidence that the implementation of the Actual Size rule is associated with any degradation of Nasdaq market quality or of investors' access to automatic execution systems. Specifically, the NASD found no statistically significant empirical evidence that the Actual Size Rule negatively impacted spreads, depth, volatility, liquidity, or investors' access to automatic execution systems, even during October 27 and 28, 1997. These findings were consistent with those the NASD made in its June 1997 Study.

The Commission has analyzed carefully the NASD's methodologies and analyses and finds that they are reasonable, rigorous, and credible. The NASD's decision to study the expanded group of pilot stocks is appropriate, as is the NASD's choice of time periods used to study the Actual Size Rule's potential effects. The NASD analyzed various measures of market quality and investor access to automatic execution systems and explained in great detail how the data was generated, analyzed, and how it controlled for changes in stock-specific trading characteristics such as price, volume, and intraday volatility. Commenters were given ample opportunity to critique the NASD's studies and to conduct their own studies.

The Commission extended and expanded the pilot to give the NASD time to produce data that could be used to address concerns about the representatives of the original 50-stock pilot. The Commission is satisfied that the March 1998 Study has adequately addressed those concerns by studying a wider range of securities over a longer period. Based on those studies, the Commission is satisfied with the NASD's determination that the implementation of the Actual Size Rule did not cause any degradation of the Nasdaq marketplace or of investors' access to automatic execution systems.

In determining whether to approve the Actual Size Rule on a permanent basis, the Commission gave careful consideration to the many comments it received in addition to the empirical studies produced by the NASD. Many of the positive comment letters were from firms that either engage in market making activities or have retail or institutional customers they believe will benefit from perceived gains in competition. They believe that the Actual Size Rule aids their market making activities and allows them to better serve their customers. One firm states that it has ''become more active in the stocks under the Pilot program due to [its] ability to properly manage [its] risk.''[134] Several commenters note that by cutting barriers to entry, the Actual Size Rule should encourage market maker participation, including that of smaller firms.[135] These comments reflect the burdens of a minimum share requirement on market making and the potential benefits of the Actual Size Rule.

The Commission also received a comment letter from the ICI, a national association of the investment company industry, favoring the rule proposal. The ICI's membership includes 6,976 mutual funds, 447 closed-end funds, and 10 sponsors of unit investment trusts. It mutual fund members represent more than 63 million individual shareholders and manage more than $5 trillion.

Manyu of the Opposing comment letters were form firms or associations that benefit in some way from the mandatory minimum quote size requirements. For instance, the ETA—which represents about 40 order entry firms and others interested in trading via computer—opposes the Actual Size Rule.

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[127] *See* March 1998 Study; *see also* NASD Economic Research, ''Implementation of the SEC Order Handling Rules,'' October 14, 1997 (''October 1997 Study''); and Simaan-Whitcomb Study at 4.

[128] The Commission believes there are substantial reasons to expect that once the Actual Size Rule reduces regulatory constraints on market maker capital commitment for all Nasdaq securities, it will become increasingly likely that, over time, barriers to entry for market making will be reduced.

[129] *See* Release No. 39285, *supra* note 3, 62 FR 59936.

[130] *Id.*

[131] *Id.*

[132] *Id.*

[133] *See* Letter from Richard Y. Roberts, on behalf of the ETA, to Jonathan G. Katz, Secretary, SEC, dated October 30, 1997.

[134] *See* M.H. Meyerson Letter.

[135] *See, e.g.*, JP Morgan Letter; Ohio Letter; Marino Letter; Merrill Letter; Knight Letter; 4/29 and 4/1 STA Letter, Jefferies Letter; Howard Letter; STANY Letter; and Weeden Letter.

A number of the opposing comment letters were submitted by or on behalf of day traders. Not surprisingly, these commenters oppose the Actual Size Rule, which limits their ability to affect SOES executions large enough to maximize day trading strategies. Although the Commission weighed this small group of professional investors' concerns very carefully in determining whether to approve the proposal, ultimately the Commission has concluded that it is in the best interests of the majority of investors, as well as the markets, to permit Nasdaq to remove the minimum mandatory quote size requirements.[136] Thus, even though the Actual Size Rule may alter somewhat the dynamics of electronic trading in Nasdaq securities (offset, however, by the Order Handling Rules), the Commission believes that the Actual Size should operate evenhandedly to all investors, should not impose discriminatory or anti-competitive costs, and should not impair transparency. There is no basis for concluding that the Actual Size Rule was designed to benefit market makers at the expense of the Nasdaq market.

Nevertheless, the Commission gave serious consideration to the negative comment letters. First the Commission notes that several comment letters allege market maker abuses any try to relate them to the need for a minimum quote sized requirement. The Commission takes allegations of market maker abuse very seriously and has and will continue to monitor the NASD's surveillance of market-making activity very closely. None of the comment letters, however, provide any concrete evidence to suggest that such abuses are on-going or occur more frequently in securities subject to the Actual Size Rule than in the non-ASR securities. Moreover, the Order Handling Rules are a much more effective and market-oriented approach to prevent abusive quoting behavior than artificial quote size minimums, especially when combined with the NASD's enhanced market maker surveillance.

Some commenters expressed concern that the Actual Size Rule could hurt Nasdaq's reputation, perhaps leading investors to turn away from Nasdaq. Nasdaq's reputation and ability to compete without other markets will likely rest, however, on measures of market quality such a liquidity, volatility, depth, and spreads. As discussed above, the NASD's March 1998 Study suggests that such measures are not materially affected by the Actual Size Rule.

The Commission gave careful scrutiny to the Simaan-Whitcomb Study (which was attached to comments from Whitcomb and the ETA). Ultimately, however, the Commission finds the NASD's analysis more complete and persuasive. For example, for the reasons discussed below, the data analyzed in the NASD's March 1998 Study differs significantly from that analyzed in the Simaan-Whitcomb Study, as do the conclusions drawn by the NASD and the Simaan-Whitcomb Study's authors and the ETA.[137] In determining which conclusions deserve greater credence, the Commission compared the data sets the studies analyzed. The Commission also compared the economic analyses undertaken by the NASD and Professors Whitcomb and Simaan. As discussed below, the Commission gave greater weight to the NASD's study because it analyzed more securities for a longer period of time and used, the Commission believes, more rigorous economic tools to reach its conclusions.

The Simaan-Whitcomb Study analyzes Nasdaq trades and quotes for two, ten-day periods, one in September 1997 and one in October 1997. The NASD's March 1998 Study compares 18 trading days between October 13 and November 7, 1997, with 20 trading days between November 10 and December 9, 1997—a significantly larger sample of trading days.

Further, the Simaan-Whitcomb Study generally compares the ''First 40'' stocks (for which mandatory 1,000 share proprietary quote sizes were waived) with the ''Second 40'' (which are subject to minimum proprietary quote sizes of 1,000 shares).[138] The March 1998 Study compares a much larger sample of securities: the pilot stocks and a control group of peer stocks (the non-pilot stocks) that remained subject to mandatory minimum quote sizes. The pilot stocks group was a stratified random sample that was more representative of the entire Nasdaq marketplace than the 50 stocks that became subject to the Actual Size Rule on January 20, 1997.[139] The Simaan-Whitcomb Study does not analyze this improved sample, even though Whitcomb, one of the Simaan-Whitcomb Study's authors, earlier requested such sample improvements, urging the Commission to ''insist that [the] NASD pick a stratified random sample that is balanced across stock groups.'' [140]

The Commission also discounted the Simaan-Whitcomb Study because it ignores significant changes to the NASD's rules. Specifically, the Simaan-

[136] The Commission recognizes that, under one possible economic theory, SOES day traders may have an impact on pricing efficiency (while imposing certain costs on market making). According to this theory, SOES day traders' ability to exploit a price disparity between different market makers' quotations may provide an incentive for market makers to monitor closely market information and to incorporate quickly that information into their quotations. An NASD study suggests, however, that day traders have a reduced role to play in pricing efficiency due to the SEC's Order Handling Rule. *See* October 1997 Study. Further, based on the NASD's March 1998 Study, the Actual Size Rule's impact on day traders—as measured by the percentage of SOES orders fully executed at a single price and by the average size of an executed SOES order—appears to be minimal. Finally, any minor impact the Actual Size Rule may have on day traders should be outweighed by the Actual Size Rule's likely long-term benefits to investors and the Nasdaq market, as discussed throughout this order.

[137] In addition, both the ETA and Whitcomb take issue with the economic theory discussed in the March 1998 Study. Briefly, Whitcomb argues that Nasdaq is an oligopolistic market and both the ETA and Whitcomb posit that the Actual Size Rule will not benefit Nasdaq as the NASD believes. The ETA and Whitcomb base these arguments primarily on their assertions that Nasdaq market makers do not engage in quotation price competition because of preferencing arrangements, among other things. They also argue that because Nasdaq market making is already very profitable there is no threat that market makers will drop Nasdaq stocks and therefore no need to provide the Actual Size Rule as an incentive. Neither the ETA nor Whitcomb offer any evidence, however, concerning either Nasdaq market makers' profitability or about preferencing.

[138] The first 50 stocks subject to the Order Handling Rules were also the first 50 stocks subject to the Actual Size Rule (''First 50''). The second group of 50 stocks subject to the Order Handling Rules (''Second 50'') were used as a control group, since they were not initially subject to the Actual Size Rule. Both groups include 40 stocks selected from the first through fifth deciles of the 1,000 most active Nasdaq stocks. These two groups were used as peers by the NASD in its June 1997 Study and by Professors Simaan and Whitcomb in the Simaan-Whitcomb Study and are referred to as the ''First 40'' and the ''Second 40.'' The remaining 10 stocks in the first tranche were roughly the top 10 stocks (''First 10'') based on median daily dollar volume, and the remaining 10 from the second tranche were roughly stocks 11 through 20 (''Second 10''). Consistent with the Commission's request for a ''matched pairs analysis,'' the First 10 and Second 10 are excluded from this analysis, because these groups do not demonstrate similar trading characteristics and hence cannot be properly compared. *See* Release No. 38156, *supra* note 3, at 62 FR 2425. Indeed, including the First 10 and Second 10 would likely produce skewed results. The market quality improvements produced by the Order Handling Rules, however, are apparent in both the First 10 and the Second 10. *See* June 1997 Study at 22.

[139] *See* March 1998 Study at Section III.C.2; *see also* Release No. 39285, supra note 3, 62 FR at 59937 (In that order, the Commission stated that 100 securities added to the pilot ''include securities with significantly different trading volumes, so the NASD will be better able to assess the impact of the Actual Size Rule on the full panoply of Nasdaq stocks. This will further the evaluation of the Actual Size Rule and will assist the SEC in its determination as to whether to expand the pilot ultimately to all Nasdaq securities or to end it.'').

[140] *See* Letter from David K. Whitcomb to Jonathan G. Katz, Secretary, SEC, dated July 3, 1997.

Whitcomb Study expresses concern that many investors do not have adequate access to SOES trades while an ECN is alone at the inside.[141] As an initial matter, this concern could exist whether or not the Actual Size Rule was approved, and its relevance to the size of a market maker's quote is questionable. Nevertheless, this concern was reduced by subsequent Nasdaq rule changes. In particular, on February 10, 1998, the Commission noticed a proposed change to NASD Rule 4730(b)(1) that became effective immediately, pursuant to Section 19(b)(3)(A) of the Exchange Act and Rule 19b–4(e)(5) thereunder.[142] The NASD proposed the rule change to address problems associated with the rejection of orders in SOES when there is no market maker at the inside quote. Previously, under NASD Rule 4730(b)(10), an ECN quote that was the best bid or offer in a security would effectively halt executions in SOES. Orders that had execution priority before the ECN order became the inside bid or offer were rejected. Now, these orders will be held in a queue for 90 seconds to allow the market to create a new inside bid or offer.

The rule change operates when an ECN or a market participant with unlisted trading privileges is alone at the inside in a Nasdaq National Market security. In this situation, executable SOES orders that are in queue or received at that moment will be held for a specified period of time. This ''hold time,'' initially set at 90 seconds, is the maximum life of an order. Holding the queued orders for 90 seconds will give other market makers time to adjust their quotes to create a new inside, join the ECN at its price, or allow the ECN to move away from the inside. If one of these conditions is met and the order is still executable, it will execute. If any of these conditions do not occur, however, the order will time out, under normal time-out processing, and be returned to the entering firm at the end of the 90-second maximum life of the order. Nasdaq SmallCap securities will continue to execute against the next available SOES market maker at the ECN price. This concern raised by the ETA and Whitcomb, while not a result of the Actual Size Rule, therefore has been reduced, because SOES orders have a longer opportunity to be executed when an ECN is at the inside market.[143]

The Simaan-Whitcomb Study also asserts that ''market makers will reduce their quotes on the side of the market that is experiencing stress when they are free to do so.'' This assertion, which is provided without empirical support, is in conflict with the March 1998 Study's data and the NASD's analysis showing that liquidity and depth for both Actual Size Rule and non-ASR stocks was substantially the same.[144] Given that the better analysis of the data produced by the pilot indicates that the Actual Size Rule affected the liquidity and depth of pilot and non-pilot securities similarly, the Simaan-Whitcomb Study's concerns about liquidity appear unfounded.

The March 1998 Study and the Simaan-Whitcomb Study also differ in their analysis of data concerning market quality measures. For example, as the NASD notes in its June 1, 1998, letter responding to commenters that criticized the NASD proposal,

> Both the ETA and Whitcomb Letters cite evidence contained in the Simaan-Whitcomb Study that purports to demonstrate that the Actual Size Rule reduced liquidity during the extreme market conditions of October 27 and 28, 1997. The analysis is based solely on aggregate quoted size—a limited measure of liquidity—and a flawed derivative measure, ''aggregate truncated size.'' Based on these limited measures, the ETA and Whitcomb Letters conclude that investors experienced a reduction in access to market maker capital during October 27 and 28, 1997 due to the Actual Size Rule. A more direct analysis of the issue—involving actual SOES orders—was included in the [NASD's] March 1998 Study, which found that 98.1% of SOES orders in a group of Actual Size Rule stocks were fully executed at a single price during October 27 and 28, 1997, compared to 98.3% of SOES orders in a group of stocks not subject to the Actual Size Rule. (Footnotes omitted.)

In addition, the NASD notes that the liquidity measure called ''aggregate truncated size'' used in the Simaan-Whitcomb Study assumes quotes above 1,000 shares are not real. Use of this measure is based on a misunderstanding that ''NASD rules permit a dealer to decline to fill an order larger than 1,000 shares even if the dealer's quote exceeds the order size.'' [145] As discussed above, market makers must honor their quotes even if they are for 1,000 shares or more.[146]

Moreover, as noted by the NASD in its June 1, 1998, letter, the Simaan-Whitcomb Study compares levels of quoted aggregate depth without controlling for stock price. Citing the Simaan-Whitcomb Study, the Whitcomb letter states that the average quoted depth of a group of stocks subject to the Actual Size Rule (*i.e.*, the First 40) constituted 80% to 85% of the average quoted depth for a comparable group of stocks not subject to the Actual Size Rule (*i.e.*, the Second 40). As the NASD notes, the Simaan-Whitcomb Study fails to consider that the First 40 stocks are more expensive than the Second 40 Stocks. According to the NASD, in January 1997, the average share price of the First 40 stocks was $39 and the average share price for the Second 40 stocks was only $34. The NASD concludes that the depth quoted by market makers is, therefore, similar for both groups in terms of dollars of capital committed. The Commission believes this conclusion is reasonable.

In addition, the letters from both the ETA and Whitcomb cite the Simaan-Whitcomb Study as well as a report submitted by the ETA regarding automatic executions in the Nasdaq marketplace (''ETA Report'').[147] Whitcomb cites the ETA Report for the proposition that the completion rate for SOES orders fell for ASR securities but rose for non-ASR securities. The NASD argues that the ETA Report's measure is seriously flawed because it (1) includes orders that were actively canceled by the order-entry firm, which were a substantial majority of unexecuted orders, and (2) fails to account for substantial differences between trading characteristics of stocks included in the analysis.[148] The NASD concludes, and the Commission believes this conclusion is reasonable, that the evidence presented in the NASD's June 1997 and March 1998 Studies demonstrates that a substantial majority of SOES orders are fully executed at a single price level.

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[141] *See* Simaan-Whitcomb Study at 6-9.

[142] Exchange Act Release No. 39637 (February 10, 1998) 63 FR 8242 (February 18, 1998) (SR–NASD–98–05).

[143] The Commission also notes that in criticizing the NASD's liquidity measure in favor of the Simaan-Whitcomb Study's methodology, the Simaan-Whitcomb Study mischaracterizes a dealer's obligations under the Firm Quote Rule and NASD Rule 4613(b). *See* SEC rule 11Ac1–1 (Firm Quote Rule) and NASD Rule 4613(b). Both rules require market makers to honor their quotes even if those quotes exceed the mandatory minimum quotation size. The Simaan-Whitcomb Study's rationale for claiming that the liquidity measures it uses are better than the ones the March 1998 Study uses is therefore suspect.

[144] *See* March 1998 Study at 92–100.

[145] *See* Simaan-Whitcomb Study at 9.

[146] *See* note 143, *supra*.

[147] *See* ETA and DRI/McGraw-Hill, ''Analysis of Automatic Executions on the Nasdaq Stock Market,'' May 1997, submitted as Attachment I of Letter from Richard Y. Roberts, on behalf of the ETA, to Jonathan G. Katz, Secretary, SEC, dated May 12, 1997.

[148] *See* Letter from Richard Ketchum, Chief Operating Officer, NASD, and Dean Furbuth, Chief Economist and Senior Vice President, NASD, to Jonathan G. Katz, Secretary, SEC, dated June 17, 1997.

This conclusion rebuts some commenters' assertions that it is difficult to fill orders over 100 shares close to the inside market without multiple executions, potentially occurring at different price levels.[149] The NASD concluded in the March 1998 Study, however, that

98.5% of SOES orders (98.3% of volume) were fully executed at a single price for pilot stocks after implementation of the Actual Size Rule. For non-pilot stocks, 98.9% of orders (98.8% of volume) were executed at a single price during this period. Multiple price SOES executions are rare for both groups; only 1.3% and 0.9% of SOES orders (1.5% and 1.1% of volume) were executed at multiple prices for the pilot stocks and non-pilot stocks, respectively, post-implementation. Clearly, the Actual Size Rule has had no measurable impact on SOES order disposition. (Footnotes omitted.)[150]

The March 1998 Study also made important findings that rebutted claims that investors' access to automatic executions was compromised by the Actual Size Rule. The March 1998 Study found that

As with Nasdaq's SOES system, proprietary autoexecution systems provide investors with immediate access to market maker capital through automatic executions at the inside market. Unlike SOES, however, these systems often automatically execute orders for sizes well above 1,000 shares, which is the largest SOES tier size. Also unlike SOES, these systems are operated at the discretion of the market maker, which generally sets size parameters for proprietary autoexecution systems. Parameters usually vary by stock and customer. Further, market makers determine which customers may use the systems. Accordingly, these systems are not perfect substitutes for SOES. The importance of these systems to individual investors should not be underestimated, however, because a number of the largest national brokerage houses use them to provide immediate, automated access to market maker capital.[151]

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Like Nasdaq's SOES system, proprietary autoexecution systems provide investors immediate access to market maker capital. Indeed, the analysis of data provided by Participant Firms underscores the importance of these systems to the marketplace. The survey conducted by NASD Economic Research and empirical analysis of these data demonstrates that the Actual Size Rule has not impacted these important systems in any way.[152]

In sum, the Commission approved the NASD's rule change (to require Nasdaq market makers to quote at least 1,000 shares) in 1990 out of concern that market maker quotations at that time did not provide a realistic picture of execution size available and the depth of the market. The NASD's data shows that this is no longer the case. Thus, in light of the changes brought about by the Order Handling Rules, which have served to make the Nasdaq market significantly more order-driven, and the empirical research indicating no material adverse impact of the Actual Size Rule on investors or the Nasdaq market, and after carefully considering all of the comment letters, the Commission has concluded that minimum quotation sizes are no longer necessary and should be removed for all Nasdaq stocks.

The Commission therefore finds that the proposed rule change is consistent with the Exchange Act, including Sections 11A(a)(1)(C), 15A(b)(6), and 15A(b)(11). Specifically, Section 11A(a)(1)(C) provides that it is in the public interest to, among other things, assure the economically efficient execution of securities transactions and the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities. Section 15A(b)(6) requires that the rules of a national securities association be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest. Section 15A(b)(11) requires that the rules of a national securities association be designed to produce fair and informative quotations and to prevent fictitious or misleading quotations, among other things.

As discussed above, the Commission believes that the Actual Size Rule should not have a material adverse impact on market spreads, volatility, depth, liquidity, or investor access. In addition, the Actual Size Rule should give market makers more flexibility to manage their risk. Removing the current minimum size requirements enables market makers to reflect size in their quotations based on market and business factors instead of a regulatory-imposed minimum. This should increase the information content of market makers' quotes. Finally, by removing the current regulatory size requirements, the Actual Size Rule removes a barrier to entry for making markets in Nasdaq securities. The Commission believes that the net long-term results of the Actual Size Rule should benefit market makers and investors without adversely affecting market quality.

V. Conclusion

For the reasons discussed above, the Commission finds that the NASD's proposal is consistent with the Exchange Act (specifically, Sections 11A and 15A of the Exchange Act) and the rules and regulations thereunder applicable to a national securities association and has determined to approve the NASD's proposal to amend NASD Rule 4613(a)(1)(C) permanently to allow Nasdaq market makers to quote their actual size by reducing the minimum quotation size requirement for Nasdaq market makers in all Nasdaq securities to one normal unit of trading.[153]

It is therefore ordered, pursuant to Section 19(b)(2) of the Exchange Act,[154] that the proposed rule change, SR–NASD–98–21, be and hereby is approved.

By the Commission.

Margaret H. McFarland,

Deputy Secretary.

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SECURITIES AND EXCHANGE COMMISSION

[(Release No. 34–40200; File No. SR–NASD–98–33)]

Self-Regulatory Organizations; National Association of Securities, Dealers, Inc.; Order Granting Approval to Proposed Rule Change and Amendment 1 Thereto Relating to Exemptions From Fidelity Bonding Requirements

July 14, 1998.

I. Introduction

On April 20, 1998, the National Association of Securities Dealers, Inc., (''NASD'' or ''Association'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') a proposed rule change pursuant to Section 19(b)(1) of the Securities

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[149] *See, e.g.,* R. Chung Letter; Eisner Letter; Meurer Letter; Sanbeg Letter; Sherwood Letter; Wieser Letter; Wilson Letter; and Zatorski Letter.

[150] March 1998 Study at 87–88.

[151] *Id.* at 89.

[152] *Id.* at 90.

[153] In approving this rule, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. As discussed above, the proposed rule likely will produce more accurate and informative quotations, increase competition, and encourage market makers to maintain competitive prices.

[154] 15 U.S.C. 78s(b)(2).