SECURITIES AND EXCHANGE COMMISSION

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Self-Regulatory Organizations; Notice of Filing of Proposed Rule Change by the New York Stock Exchange, Inc. to Rescind Exchange Rule 390; Commission Request for Comment on Issues Relating to Market Fragmentation

February 23, 2000.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Exchange Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on December 10, 1999, the New York Stock Exchange, Inc. (''NYSE'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') a proposed rule change to rescind Exchange Rule 390. The proposal is described in Items I, II, and III below, which Items have been prepared by the NYSE. The Commission is publishing this notice to request comments on the proposed rule change from interested persons. In addition, the Commission is requesting comment in Item IV below on a broad range of issues relating to market fragmentation.

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Commission's Introduction

Subject to many exceptions, NYSE Rule 390 prohibits members and their affiliates from effecting transactions in NYSE-listed securities away from a national securities exchange. The Rule's restrictions on off-board trading frequently have been criticized as an inappropriate attempt to restrict competition among market centers. Two Exchange Act rules already restrict the scope of Rule 390.[3] On October 27, 1999, Chairman Levitt, in congressional testimony given on behalf of the Commission, cited Rule 390 as an example of a rule that introduced unnecessary costs and distorted competition and that should not be part of the future of the securities markets.[4] Subsequently, the NYSE submitted a proposed rule change to rescind the Rule.

The Commission's congressional testimony also noted that its staff was preparing a release that would request the public's views on whether fragmentation—the trading of orders in multiple locations without interaction among those orders—was a problem in today's markets and, if so, what steps should be taken to address it.[5] The elimination of off-board trading restrictions raises at least the potential for increased fragmentation of the trading interest in exchange-listed equities.[6] The proposed rescission of Rule 390 will allow NYSE members to act as over-the counter market makers or dealers in all NYSE-listed securities. As a consequence, a significant amount of order flow that currently is routed to the NYSE may be divided among a number of different dealers in the over-the-counter market, where there may be a reduced opportunity for order interaction.

The 1975 Amendments to the Exchange Act[7] created a framework for fostering transparency and competition in our securities markets. As a result, today, equity market centers compete with one another in an environment where quotes and transaction prices are widely available to all market participants. Linkages among competing market centers help ensure that brokers can access the best quotes available in the market for their customers. Market centers (including exchange markets, over-the-counter market makers, and alternative trading systems) have an incentive to offer improvements in execution quality and to reduce trading costs in order to attract order flow away from other market centers. This competition among market centers encourages ongoing innovation and the use of new technology. Within an individual market center, investor orders may interact directly without the intervention of intermediaries, allowing investors to obtain executions at better prices than otherwise would be available.

The Commission is concerned, however, that customer limit orders and dealer quotes may be isolated from full interaction with other buying and selling interest in today's markets. As a result, vigorous quote competition may go unrewarded. For example, a customer today may enter a limit order to buy at a price higher than the current

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

[2] 17 CFR 240.19b–4.

[3] Exchange Act Rule 19c–1, 17 CFR 240.19c–1; Exchange Act Rule 19c–3, 17 CFR 240.19c–3.

[4] Testimony of Arthur Levitt, Chairman, SEC, Concerning Market Structure Issues Currently Facing the Commission, before the Subcommittee on Securities, Committee on Banking, Housing and Urban Affairs, U.S. Senate (Oct. 27, 1999) at 14–15.

[5] *Id.* at 16.

[6] In addition to the NYSE, the American Stock Exchange LLC (''Amex'') and the Chicago Stock Exchange, Incorporated recently have moved to rescind their off-board trading rules. The Commission's staff has sent letters to the other national securities exchanges urging them to review any off-board trading restrictions they may have and to consider measures to rescind those restrictions.

[7] Pub. L. No. 94–29, 89 Stat. 97 (1975).

quote, thus setting a new best price in the market. Even though the customer offers to pay more than any other market participant, market centers holding sell orders have no obligation to route a sell order to fill the price-setting buy order. Rather, they can trade as principal with their order flow by matching the price-setting buy order. To the extent that the price-setting customer's limit order remains unexecuted and subsequent buying interest is filled at the customer's price, the customer's order has been isolated, and the incentive of customers to improve prices potentially compromised. Similarly, where a dealer improves the current bid, and then watches transactions occur at the price it set without attracting order flow, the incentive to quote aggressively may be substantially inhibited.

Other practices have contributed to an environment in which vigorous quote competition is not always rewarded. Broker-dealers that trade as principal with customer order flow may use part of their trading profits to buy order flow from certain retail firms, giving the firm the opportunity to trade with the retail orders without competing for them on the basis of quotes. Broker-dealers that have access to retail customer order flow and that own or are affiliated with market-making operations have a similar ability to trade as principal with their retail customers without quoting aggressively. These order flow arrangements may discourage quote competition by isolating investor order flow from investor limit orders and dealer quotes displayed in other market centers. Even when wholesale and internalizing broker-dealers execute trades at prices better than the national best bid and offer (''NBBO''), these superior transaction prices are often in part determined by formulas dependent on the NBBO.

The Commission therefore believes that the proposed rescission of Rule 390 presents an opportune time to consider the effects of fragmentation on the securities markets. In particular, the Commission is evaluating whether the national market system will continue to meet the needs of investors by: (1) Maintaining the benefits of vigorous quote competition and innovative competition among market centers; (2) encouraging and rewarding market participants (including both investors and dealers) who contribute to public price discovery by displaying trading interest that is widely accessible and can be easily executed by other market participants; (3) assuring the practicability of best execution of all investor orders, including limit orders, no matter where they originate in the national market system; and (4) providing the deepest, most liquid markets possible that facilitate fair and orderly trading and minimize short-term price volatility.

The Commission believes that it would be beneficial to obtain the views of the public on these issues in order to conduct a systematic and balanced evaluation of fragmentation concerns—both in the equities and options markets.[8] Accordingly, this release, after setting forth the NYSE-prepared submissions in Items I, II, and III below, includes a Commission discussion of market structure issues and a broad request for comments on market fragmentation in Item IV.

I. NYSE's Statement of the Terms of Substance of the Proposed Rule Change

The proposed rule change consists of the rescission of NYSE Rule 390.

II. NYSE's Statements Concerning the Proposed Rule Change

In its filing with the Commission, the NYSE included statements concerning the purpose of, and basis for, the proposed rule change, the burden of the proposed rule change on competition, and any comments it received on the proposed rule change from members, participants, or others. The text of these statements, which were prepared by the NYSE, is set forth in Items A, B, and C below.

A. NYSE's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this filing is to rescind Exchange Rule 390, which has operated to preclude, among other matters, NYSE member firms from internalizing their agency order flow by trading as dealer or principal against it. The Exchange believes that the anti-internalization concerns addressed by Rule 390 are significant enough that they should not be addressed by a series of similar rules of individual market centers, such as the NYSE's Rule 390. Rather, the Exchange urges that the Commission, in approving the rescission of Rule 390, adopt a market-wide requirement as described more fully below that broker-dealers not be permitted to trade against their customer orders unless they provide a price to the order that is better than the national best bid or offer against which the order might otherwise be executed.

Rule 390, the Exchange's ''Market Responsibility Rule,'' was adopted in 1976 in the wake of the 1975 Amendments to the Exchange Act to replace a predecessor rule. The rule was intended to maximize the opportunity for investors' orders to interact with one another in agency auction markets and be executed without dealer intervention. Accordingly, Rule 390 as originally adopted prohibited members and member organizations, and any non-member broker or dealer in a control relationship with them (''affiliated persons''), from effecting any transaction in any listed stock in the over-the-counter market, either as principal or agent. Pursuant to Exchange Act Rule 19c-3, which was adopted in 1980, Rule 390 currently applies only to stocks listed on the Exchange as of April 26, 1979, otherwise known as ''covered securities.'' In accordance with Exchange Act Rule 19c-1, Rule 390 was amended in 1978 to permit members to trade as agent in the over-the-counter market with another person, except where the member was also acting as agent for such other person (''in-house agency cross''). Rule 390 contains ten specific exceptions for unique or away from the current market situations, and permits members, member organizations, and affiliated persons to trade in a foreign over-the-counter market outside of Exchange trading hours.

Thus, the principal restrictions in Rule 390 today are two-fold:

(i) A member, member organization, or affiliated person may not trade as principal in the over-the-counter market in a covered security with an agency order; and

(ii) A member, member organization, or affiliated person may not effect an in-house agency cross in the over-the-counter market in a covered security.

The Exchange believes that the restriction against in-house agency crosses of market and marketable limit orders does not raise the same concerns as the restriction against proprietary internalization. With respect to markets linked by the Intermarket Trading System, one side or the other of an agency cross transaction receives an

[8] The equities and options markets differ in several important respects, and the specific nature of the tools needs to address fragmentation may vary between them. For example, all trading of listed options occurs on national securities exchanges—there is no off-board trading by over-the-counter market makers. In addition, the pricing of an option contract, as a derivative instrument, significantly differs from the pricing of a stock. Nonetheless, the fundamental goals of the Exchange Act, including the efficient execution of transactions at fair prices, are equally applicable to both types of markets. The Commission is raising for comment the issues of options market fragmentation in this release, but also is addressing these issues in the specific context of multiple trading of options. *See, e.g.,* Securities Exchange Act Release No. 43029 (Oct. 19, 1999), 64 FR 57674 (ordering the options markets to develop a linkage plan for multiply-traded options).

improved price, if the cross is executed at either the national best bid or offer, and both sides of the cross receive an improved price if the cross is executed between the national best bid and offer.

If a broker-dealer is trading as principal against agency orders, however, the Exchange believes that serious concerns arise about whether agency orders are being afforded an opportunity to receive the best possible price that may be available. Typically, broker-dealers internalize agency market orders by buying from sell orders at the bid price, and selling to buy orders at the offer price. While such agency orders may be receiving the national best bid or offer price, they do not interact with other public orders, and they are often denied the opportunity to receive any degree of price improvement, such as, for example, an execution at the offer price (in the case of a sell order) or an execution at the bid price (in the case of a buy order), or an execution between the bid and offer prices. In an agency auction market such as the Exchange, a member seeking to trade with an agency order must first expose the order to the market for possible price improvement before consummating the transaction. In any event, continuous interaction among broker-agents in an agency auction market frequently results in customers receiving better prices than the national best bid or offer.

The Exchange believes that broker-dealer internalization also raises concerns about market fragmentation, as public orders are denied the opportunity to interact with one another. Such interaction creates the most efficient pricing mechanism based on an equilibrium between public supply and demand. The Exchange believes that broker-dealer internalization results in the most objectionable of all forms of market fragmentation: the execution of ''captive'' customers'' orders in such a manner as to insulate them from meaningful interaction with other buying and selling interest. This not only decreases competitive interaction among markets and market makers, but also isolates segments of the total public order flow and impedes competition among orders, with no price benefit to the orders being internalized. The Exchange believes that internalization, as typically conducted, always involves broker-dealer intervention as principal, usually excludes ''captive'' orders from opportunities for price improvement, and is rife with conflicts of interest, as a broker-dealer can seize a trading opportunity to trade with a captive customer order at an unimproved price (e.g., buying from a sell order at the bid price), and then immediately offer what was just purchased at a higher price, thereby capturing a virtually riskless dealer turn by exploiting its own agency order flow.

Section 11A(a)(1) of the Exchange Act [9] expresses the Congressional mandate that investor protection and the maintenance of fair and orderly markets require assurance of economically efficient execution of securities transactions in the best market for those transactions, and, consistent with these considerations, for investors' orders to be afforded the opportunity to be executed without the participation of a dealer. The Exchange believes that this Congressional mandate can be most reasonably effectuated, and public investors best served, if internalization/dealer intervention is limited to those situations where public investors, rather than the broker-dealers handling their orders, are given improved prices, and in essence are permitted to capture the bid/offer spread instead of the broker-dealer.

Accordingly, the Exchange believes it would be appropriate for the Commission to adopt a new rule, pursuant to its authority under Section 11A, providing that broker-dealers may trade as principal with their own customer orders only where:

(i) In the case of a customer market or marketable limit order to buy stock, the broker-dealer sells to its customer only at the price of the national best bid, or sells to its customer at a price that is between the national best bid and offer, and

(ii) in the case of a customer market or marketable limit order to sell stock, the broker-dealer buys from its customer only at the price of the national best offer, or buys from its customer at a price that is between the national best bid and offer.

The Exchange believes that such requirements would assure that investors receive the fairest pricing of their internalized orders, and would eliminate broker-dealer conflicts of interest in trading against their own customer order flow to capture the spread.

2. Statutory Basis

The Exchange believes that the basis under the Exchange Act for this proposed rule change is the requirement under Section 6(b)(5) [10] that a national securities exchange have rules that are designed to promote just and equitable principles of trade, 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. The rescission of Rule 390 and the Exchange's request that the Commission adopt an industry-wide customer price protection rule serve to support the perfection of a free and open market and a national market system.

B. NYSE's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Exchange Act.

C. NYSE's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

The Exchange has neither solicited nor received written comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve the proposed rule change, or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Commission's Request for Comment on Market Fragmentation

As noted in the Introduction, the Commission believes that it will be helpful to provide the public with an opportunity to submit their views, data, and proposals on market fragmentation. The markets for listed equities currently reflect a fairly low degree of fragmentation. In September 1999, for example, 74.4% of the trades and 83.9% of the share volume in NYSE-listed equities were executed on the NYSE. [11] Similarly, approximately 68.7% of the trades and 70.5% of the share volume in Amex-listed securities were executed on the Amex.[12] Thus, a large proportion of the order flow in listed equity securities currently is routed to a single market center with rules that provide for

[9] 15 U.S.C. 78k-1(a)(1).

[10] 15 U.S.C. 78f(b)(5).

[11] Source: NYSE.

[12] Source: Amex.

extensive interaction of investor buying and selling interest in a security, but only one market maker—the specialist. In 1998, for example, specialists acted as either the buyer or seller in 25.3% of the share volume executed on the NYSE.[13] Aside from the primary exchanges, trades in listed equities are executed on the regional exchanges (14.5% of NYSE-listed trades in September 1999) and by over-the-counter market makers (11.1% of NYSE-listed trades in September 1999).[14] These percentages could change after the rescission of off-board trading restrictions such as NYSE Rule 390.

In the market for Nasdaq equities, in contrast, trading interest is much more divided among different market centers. It is primarily a dealer market, in which multiple market makers compete for order flow. In September 1999, for example, there was an average of 11.4 market makers per Nasdaq issue.[15] In addition, a number of alternative trading systems (''ATSs'') operate electronic limit order books for the trading of Nasdaq equities. In September 1999, nine of these ATSs collectively accounted for 28.0% of trades in Nasdaq equities.[16]

The NYSE's request for rulemaking set forth in Item II.A.1 above relates to a specific type of fragmentation—the internalization by integrated broker-dealers of their agency market and marketable limit orders. The Commission, however, is interested in receiving comments on the full spectrum of fragmentation issues. Accordingly, this Item IV first provides an overview of the current market structure and a discussion of the Commission's regulatory role in overseeing the national market system. The public then is requested to evaluate the current market structure and comment on six potential options for Commission action to address fragmentation.

A. Overview of Current Market Structure

Section 11A(a) of the Exchange Act sets forth findings and objectives that are to guide the Commission in its oversight of the national market system. For purposes of evaluating market structure, these findings and objectives can be summed up in two fundamental principles:

(1) the interests of investors (both large and small) are preeminent, especially the efficient execution of their securities transactions at prices established by vigorous competition;[17] and

(2) investor interests are best served by a market structure that, to the greatest extent possible, maintains the benefits of *both* an opportunity for interaction of all buying and selling interest in individual securities and fair competition among all types of market centers seeking to provide a forum for the execution of securities transactions.

Market centers compete to offer innovative services and reduced trading costs to attract order flow from other market centers. Market center competition may contribute to economically efficient execution of securities transactions in other ways as well.[18] At the same time, the existence of multiple market centers competing for order flow in the same security may isolate orders and hence reduce the opportunity for interaction of all buying and selling interest in that security. This may reduce competition *on price,* which is one of the most important benefits of greater interaction of buying and selling interest in an individual security. Price competition also may be enhanced by competition among market centers when this involves multiple dealers competing for order flow based on displayed quotations. Consequently, although the objectives of vigorous competition on price and fair market center competition may not always be entirely congruous, they both serve to further the interests of investors and therefore must be reconciled in the structure of the national market system.

1. Investor Interests and Competition on Price

The secondary securities markets exist to facilitate the transactions of investors. Investors should have confidence that their brokers will deal with them fairly and that their orders will be routed to market centers where they will be executed efficiently and at prices that are set by vigorous competition. In fulfilling their intermediary role, organized markets reduce the costs that every investor would otherwise incur to find contra-parties to their securities transactions and to negotiate a price. Fair and efficient securities markets thereby benefit investors by reducing their transaction costs, as well as the economy in general by establishing prices for the allocation of capital among competing uses.

Accordingly, one of the principal Exchange Act objectives for the national market system is to assure the ''economically efficient execution of securities transactions.''[19] Investors transaction costs can be divided into two categories—explicit costs, which are separately disclosed to investors, and implicit costs, which often can be greater, though less visible, than explicit costs. Most of the explicit transaction costs of investors are paid directly to the brokers who provide them with access to the securities markets. A broker's commissions will reflect, among other things, the membership and market fees that it pays to market centers and others to obtain the execution, clearance, and settlement of customer transactions.

Implicit costs, in contrast, are reflected in the execution price of a transaction and are less visible to investors than explicit costs. Implicit costs include, for example, the effective spread between bid and asked prices[20] paid by those investors who submit market orders and are willing to pay a premium for immediate liquidity. With market orders, investors direct their broker to buy or sell at the best price reasonably available in the market at the time the order is submitted. In contrast, limit orders—orders to buy or sell a security at a specified price or better—enable investors to control the prices at which they are willing to trade. For example, use of a limit order can assure that investors do not receive an execution at a price that is far different

[13] NYSE, *1998 Fact Book* 18.

[14] Source: NYSE.

[15] NASD, <http://www.marketdata.nasdaq.com (visited Dec. 11, 1999). There was an average of 47.5 market makers in the top 1% of issues by daily dollar trading volume, 24.0 market makers in the next 9% of issues, and 4.9 market makers in the bottom 10% of issues. *Id.*

[16] *Id.* In calculating the market share of ATSs, the NASD adds the orders executed internally on an ATS and the orders routed to an ATS for execution. Orders routed out to another market participant are not included.

[17] Section 11A(a)(1)(C) of the Exchange Act, for example, provides that one of the five principal objectives of the national market system is to assure an opportunity for investor orders to be executed without the participation of a dealer. This objective is conditioned upon two of the other Section 11A(1)(C) objectives of assuring the efficient execution of transactions and the execution of investor orders in the best market. The order two objectives are fair competition among broker-dealers and among market centers and the public availability of information concerning quotations and transactions.

[18] Market centers compete to provide, among other things, trading services that are fast, cheap, reliable, and as error free as possible as one means of attracting order flow.

[19] Section 11A(a)(C)(i) of the Exchange Act, 15 U.S.C. 78k-1(a)(1)(C)(i).

[20] The effective spread for a transaction does not necessarily equal the quoted spread. The quoted spread is the difference between the best *displayed* bid and the best *displayed* offer. The effective spread is twice the difference between the *transaction* price and the mid-point of the best displayed bid and the best displayed offer at the time of execution. If an investor's transaction is executed at the best displayed bid or offer, the effective spread will equal the quoted spread. If the transaction is executed at a better price than the best displayed bid or offer, the effective spread will be less than the quoted spread.

from what they expected if the market moves rapidly between the time the order is placed and the time the order is executed.

Investors who submit market orders therefore tend to be price-takers—they demand immediate liquidity and are willing to pay a premium to assure that they obtain an execution of their order. That premium is the effective spread, and it can constitute a substantial transaction cost for investors who submit market orders (as well as ''marketable'' limit orders).[21] For example, if the quoted spread in a security is 3⁄16ths and an investor submits a market order to buy 500 shares that receives an automatic execution at the displayed quotation, the total ''round-trip'' premium for liquidity will be $93.75 (assuming a subsequent market order to liquidate the position that also is executed at the displayed quotation in a 3⁄16ths market).[22]

Investors need not, however, always be price-takers and accept whatever prices the other side of the market is offering at the moment. They can participate in price competition by submitting limit orders to obtain *better* prices than the market is offering. These non-marketable limit orders can be priced between the quotes, at the quotes, or outside the quotes.[23] A between-the-quotes limit order improves the market for a security by offering immediate liquidity at a price that reduces the quoted spread. An at-the-quote limit order improves the market by adding more size at the best displayed price. For investors, the primary benefit of participating in price competition and submitting a non-marketable limit order is the opportunity to earn, rather than pay, the effective spread. One of the most significant risks of a non-marketable limit order is that the market will move away and the order will not be executed, thereby causing the submitter of the order to lose a potential profit or to incur a loss that would have been avoided by submitting a market order that was executed. For example, a Commission analysis of NYSE trading found that 90.9% of marketable limit orders were filled, 74.0% of between-the-quotes limit orders were filled, and 45.5% of at-the-quote limit orders were filled.[24] Despite the risk of submitting a limit order and missing an execution, many small investors recognize the advantage of being a price-setter rather than a price-taker and use limit orders to effect their trades. For example, an analysis of NYSE trading by the Commission's Office of Economic Analysis in 1996 found that customer limit orders accounted for 50% of customer trades of 100–500 shares and 66% of customer trades of 600–1000 shares.[25]

Another type of implicit transaction cost reflected in the price of a security is short-term price volatility caused by temporary imbalances in trading interest.[26] For example, a significant implicit cost for large investors (who often represent the consolidated investments of many individuals) is the price impact that their large trades can have on the market. Indeed, disclosure of these large orders can reduce the likelihood of their being filled. Consequently, large investors often seek ways to interact with order flow and participate in price competition without submitting a limit order that would display the full extent of their trading interest to the market. Among the ways large investors can achieve this objective are: (1) To have their orders represented on the floor of an exchange market; (2) to submit their orders to a market center that offers a limit order book with a reserve size feature; or (3) to use a trading mechanism that permits some form of ''hidden'' interest to interact with the other side of the market.[27] A market structure that facilitates maximum interaction of trading interest can produce price competition *within* displayed prices by providing a forum for the representation of undisclosed orders.

Whatever their particular trading strategy, investors that participate in price competition by offering immediate liquidity in a security are seeking primarily to interact with investor order flow on the other side of the market. Assuring an opportunity for this type of direct interaction between investors without the intervention of a dealer is one of the principal objectives of the national market system.[28] Thus, an evaluation of the efficiency of the securities markets from the standpoint of investor interests must encompass not only the size of the effective spread paid by market order investors, but also the opportunity for other investors to earn, rather than pay, the effective spread by providing, rather than seeking, immediate liquidity. Moreover, a market structure that provides a full and fair opportunity for interaction of

[21] A ''marketable'' limit order has a limit price that makes it immediately executable at the time of entry (for example, a limit order to buy at a price that is equal to or higher than the best displayed ask price or a limit order to sell at a price that is equal to or lower than the best displayed bid price). By submitting a marketable limit order, an investor still is willing to accept the best price that the other side of the market is offering at the time and therefore likely will pay the effective spread as a premium for immediate liquidity. Unless expressed otherwise, use of the term ''market orders'' subsequently in this release also includes marketable limit orders.

[22] The $93.75 figure in the text is calculated by multiplying 3⁄16ths by 500 shares to reflect both the initial buy order and subsequent sell order to liquidate the position. *See* notes 55–56 below and accompanying text for a description of the average quoted spreads in NYSE-listed and Nasdaq equities.

[23] For example, if the national best bid and offer for a security is 10 and 10 3⁄16, a between-the-quotes limit price could be either 10 1⁄16 or 10 1⁄8, an at-the-quotes limit price would be 10 for a buy order and 10 3⁄16 for a sell order, and an outside-the-quotes limit price would be less than 10 for a buy order and greater than 10 3⁄16 for a sell order.

[24] SEC, *Report on the Practice of Preferencing* (April 11, 1997) (''Preferencing Report''), at Table V–17. The percentage given in the text reflect trading on the NYSE in October 1996 when the minimum tick size on the NYSE was 1⁄8th. Another risk of limit order trading is commonly referred to as ''adverse selection''—limit orders on average are more likely to be executed when the market is moving against them. One measure of this cost of limit order trading is the difference between the price of an executed limit order and the price of the security at some time in the future. *See id.* at 158–159 & Tables V–21, V–22 (for listed equity markets, comparing execution price of limit orders to the same-sided quote five minutes after the execution took place).

[25] Securities Exchange Act Release No. 37619A (Sept. 6, 1996), 61 FR 48290 (''Order Handling Rules Release''), at n.50. The analysis encompassed all NYSE customer trades that originated from orders routed through SuperDot, the NYSE's automated order delivery system. During 1998, SuperDot processed an average of 770,325 orders per day. NYSE, *1998 Fact Book* 23. An analysis of SuperDot order flow after the initiation of trading in 1⁄16th increments in June 1997 found that limit orders represented 68.2% of total SuperDot orders. William J. Atkinson & Peter G. Martin, Office of Economic Analysis, SEC, *Halving the Minimum Tick Size on the NYSE* (April 1999), at 26.

[26] In theory, short-term price swings that hurt investors on one side of the market can benefit investors on the other side of the market. In practice, professional traders, who have the time and resources to monitor market dynamics closely, are far more likely than investors to be on the profitable side of short-term price swings (for example, by buying early in a short-term price rise and selling early before the price decline).

[27] Although they often may negotiate the terms of a block transaction directly with a dealer, many large investors also seek to take advantage of opportunities to interact with order flow on the other side of the market. For example, one analysis of trading on the NYSE found that approximately 80% of the total dollar volume of block trades in stocks comprising the Dow Jones Industrial Average were executed in the intraday downstairs market without upstairs facilitation. Ananth Madhavan & Minder Cheng, *In Search of Liquidity: Block Trades in the Upstairs and Downstairs Markets,* 10 Review of Financial Studies 175, 178 (1997).

[28] Section 11A(a)(1)(C)(v) of the Exchange Act provides that the national market system should assure an opportunity for investors' orders to be executed without the participation of a dealer. This objective is explicitly conditioned on its being consistent with the national market system objectives of efficiency and best execution of investor orders. It is not conditioned on consistency with the objective of fair competition among different types of market centers. Thus, dealer participation in securities transactions is warranted only to the extent that it leads to more efficient execution of securities transactions or the best execution of investor orders.

investor trading interest may, by enhancing price competition, reduce the transaction costs of investors who submit market orders.[29]

Dealers also may contribute to price competition by displaying firm quotations that improve the market for a security. Indeed, one of the most significant benefits of providing an opportunity for multiple dealers to participate in the national market system (often through competing market centers) is provided by their willingness to step in and supply liquidity at prices that will absorb temporary imbalances in the trading interest of investors.[30] Dealers that contribute to price competition in this way can help dampen short-term price volatility and thereby reduce transaction costs for investors.

2. Market Center Competition, Internalization, and Payment for Order Flow

Assuring fair competition among market centers is another of the principal objectives for the national market system.[31] Market centers (including exchange markets, over-the-counter market makers, and alternative trading systems) compete to provide a forum for the execution of securities transactions, particularly by attracting order flow from brokers seeking execution of their customers' orders. One of the results of this competition among market centers, however, can be fragmentation of the buying and selling interest for individual securities.

In concept, market centers can be divided into two categories—agency and dealer. An agency market center provides a mechanism for bringing buyers and sellers together (such as by matching investor market orders to buy with investor limit orders to sell) and charges fees for its services. A dealer market center, in contrast, executes trades as principal against incoming orders and receives its compensation primarily in the form of trading profits. In practice, most market centers include agency and dealer elements.[32] For example, the NYSE is primarily an agency market, but incorporates a single market maker for each security—the specialist—that has direct access to order flow, subject to affirmative and negative market-making obligations. Although over-the-counter market makers are not required to accept limit orders,[33] many in fact do accept such orders and may match them with market orders, thereby acting as an agent.[34] The extent and nature of investor buying and selling interest in a particular security ultimately may determine whether transactions in that security are executed by market centers primarily as agents or as dealers. For example, dealer transactions may predominate in securities for which there is limited investor trading interest or that attract few limit orders for any reason. Conversely, agency transactions may predominate in actively-traded securities for which investor limit orders effectively establish the market.

In a market system with many competing market centers, brokers play a critical role in deciding where to route their customer orders. Market centers offering trading services compete to attract order flow from brokers, who generally have discretion to choose the market center because non-institutional customers rarely direct where their orders are to be executed.[35] As a result, broker order-routing practices can decisively affect the terms of the competition among market centers.

The competition among market centers can take many forms, such as offering fast and reliable executions, low transaction fees, and innovative trading services. In addition, a market center may offer direct or indirect economic inducements to brokers in return for the broker agreeing to route all or part of its order flow to the market center. These inducements have taken many forms, but can be divided into two major categories—internalization and payment for order flow. Internalization is the routing of order flow by a broker to a market maker that is an affiliate of the broker. An integrated broker-dealer, for example, internalizes orders by routing them to the firm's market-making desk for execution. In this context, the economic inducement for routing order flow is inherent in the common ownership of the broker and market maker.

The other category of economic inducement for a broker to route order flow to a particular market center is payment for order flow. This is essentially a catch-all category that encompasses many different direct and indirect economic inducements. For example, a market maker may pay brokers an agreed upon amount per share or enter into explicit profit-sharing arrangements with brokers. Payment for order flow is defined in Exchange Act Rule 10b–10(d)(9)[36] as follows:

> any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration to a broker or dealer from any broker or dealer, national securities exchange, registered securities association, or exchange member in return for the routing of customer orders by such broker or dealer . . . including but not limited to: research, clearance, custody, products or services; reciprocal agreements for the provision of order flow; adjustment of a broker or dealer's unfavorable trading errors; offers to participate as underwriter in public offerings; stock loans or shared interest accrued thereon; discounts, rebates, or any other reductions of or credits against any fee to, or expense or other financial obligation of, the broker or dealer routing a customer order that exceeds that fee, expense, or financial obligation.

From a broker's perspective, one of the primary motivations for internalization and payment for order flow arrangements is the opportunity to share in the profits that can be earned by a market maker trading as principal against a substantial flow of market orders. Under internalization and payment for order flow arrangements, such orders are routed to a particular market maker that will have an opportunity to execute the orders as principal without facing significant competition from investors or other dealers to interact with the directed order flow. Moreover, the linkages among market centers that are currently in place do not require that market orders be routed to the market center that is displaying the best prices, even

[29] *See* notes 51–53 below and accompanying text (Commission's adoption of an Exchange Act rule requiring the display of limit orders, by enhancing price competition, led to a narrowing of quoted and effective spreads in the trading of Nasdaq equities).

[30] *See e.g.,* S. Rep. No. 94–75, 94th Cong., 1st Sess. 14 (1975) (''One of the fundamental purposes underlying the national market system contemplated by S. 249 is to enhance the competitive structure of the securities markets in order to foster the risk-taking function of market makers and thereby to provide free market incentives to active participation in the flow of orders.'').

[31] Section 11A(a)(1)(C)(ii) of the Exchange Act provides that the national market system should assure ''fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets.''

[32] Some alternative trading systems restrict their activities to operating a limit order book without privileged dealer participation.

[33] *See e.g.,* Securities Exchange Act Release No. 35751 (May 22, 1995), 60 FR 27997 (''Manning II''), at n.19 and accompanying text. Although over-the-counter market makers are not required to accept limit orders, they also are not permitted to refuse to accept certain limit orders in a manner that unfairly discriminates among customers.

[34] *See* Order Handling Rules Release, note 25 above, at n.365 and accompanying text (market maker that holds a customer limit order on one side of the market, priced better than the market maker's own quote, and a customer market order on the other side of the market cannot execute both orders as principal, rather than crossing the two orders, and thereby deprive the market order customer of the better price).

[35] Individual customers that trade very frequently, such as day-traders, often do choose the market center to which they want their orders routed.

[36] 17 CFR 240.10b–10(d)(9).

if that price represents an investor limit order.[37] As a result, a market maker with access to directed order flow often may merely match the displayed prices of other market centers and leave the displayed trading interest unsatisfied.[38] The profits that can be earned by a market maker trading at favorable prices with directed order flow can then be shared with the brokers that routed the orders.[39]

3. Current Market Structure Components that Address Fragmentation

To address the potentially adverse effects of fragmented buying and selling interest in individual securities, the national market system for listed equities and Nasdaq equities[40] currently incorporates three components: (1) Price transparency; (2) intermarket linkages to displayed prices; and (3) the duty of best execution owed by brokers to their customers.

a. *Price Transparency.* Price transparency is a minimum essential component of a unified national market system. All significant market centers are required to make available to the public their best prices and the size associated with the prices.[41] This information includes not only the best quotations of market makers, but also the price and size of customer limit orders that improve a market center's quotations.[42] The market centers provide quote and trade information through central processors that are responsible for collecting and disseminating the market information for different types of securities. The processors consolidate the information of individual market centers, determine the national best bid and best offer for each security (''NBBO''), and disseminate the information to broker-dealers and information vendors. Thus, the best displayed prices for a particular security are made available to the public, thereby helping to assure that investors are aware of such prices no matter where they arise in the national market system.

b. *Intermarket Linkages to Displayed Prices.* Another component of the national market system designed to address fragmentation is the establishment of systems that link the various market centers trading a security and provide access to the market center with the best displayed prices. The market centers that trade listed equities currently are linked through the Intermarket Trading System (''ITS''), which is linked to the NASD's Computer Assisted Execution System (''CAES''). The ITS linkage handles a relatively small proportion of trading in listed equities. In September 1999, for example, ITS volume represented 2.2% of total NYSE-listed trades.[43] The ITS linkage has weaknesses that must be addressed, including restricted ECN access and slow and inefficient execution procedures. The specific features needed in an intermarket linkage system may depend to a significant extent on whether the Commission adopts one or more of the intermarket trading rules discussed in Item IV.C.2 below. The Commission intends to address issues concerning the ITS linkage in tandem with its consideration of whether action is needed to address market fragmentation.

The market centers that trade Nasdaq equities currently are linked by the NASD's SelectNet system, by telephone, and through private links. In September 1999, approximately 30% of trades in Nasdaq equities were routed through SelectNet.[44] The Commission recently approved a proposed rule change by the NASD to establish a revised order delivery and execution system for Nasdaq National Market securities—the Nasdaq National Market Execution System. The system will provide, among other things, automatic execution for customer and market maker orders up to 9900 shares.[45]

As the intermarket linkage systems are currently constituted, they provide *access* to the best displayed prices, but a market center is not *required* to route its incoming market orders to a market center that is displaying the best prices. Instead, the market center to which an order is initially routed is permitted to match the best price and execute the order internally. Indeed, the executing market center need not ever have displayed the best price.

Thus, the current market structure allows price-matching rather than requiring that orders be routed to the market center that is displaying the best price, thereby isolating the orders of different market centers. Moreover, there is no intermarket time priority—the market center that was first to display the best price will not necessarily receive any order flow. Thus, the market participant (whether investor or dealer) who publicly displays an order or quotation at a better price than anyone else is offering is not entitled to any assurance that the order or quotation will interact with the next trading interest on the other side of the market. In Item IV.C.2.e below, comment is requested on whether the first trading interest to improve the NBBO should be entitled to intermarket time priority.

In addition, the current market structure does not provide intermarket priority for investor limit orders over market makers' trading against customer order flow. Instead, market makers are permitted to trade ahead of investor limit orders held by another market center (that is, execute trades as principal at the limit order price without satisfying the limit order itself). Moreover, market makers are permitted to trade ahead of an investor limit order held by another market center even if the limit order was displayed prior to any market maker's quotation at the price. From the standpoint of the investor who submitted the limit order, the risk of not obtaining an execution (the most significant risk of limit order trading) is increased when the investor's

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[37] Intermarket linkages (that is, linkages among multiple market centers trading the same security) are discussed in Item IV.A.3.b below.

[38] Some dealers offer formulas that provide executions inside the best displayed prices for certain types of orders.

[39] A practice that is somewhat similar to internalization and payment for order flow in the OTC market is preferencing on an exchange market. In 1997, the Commission issued a report on the practice of preferencing in listed equities at the Boston Stock Exchange and the Cincinnati Stock Exchange. *See* Preferencing Report, note 24 above. If found that the practice, subject to the regulatory protections adopted by the exchanges, had not diminished the quality of executions that could be obtained at the exchanges, but noted that its findings should not be taken to mean that adverse effects could not arise in the future. In particular, the Commission stated that preferencing programs would require reconsideration if 'a significant increase in the amount of preferencing activity as a percentage of overall national market system activity'' resulted in the decline in execution quality on the national market system. *Id.* at 172. The number of preferenced trades in the study represented a small percentage of the total trades in the listed market. *Id.* at Table V–1. The rescission of NYSE Rule 390 raises the potential for a significant increase in the percentage of order flow in the listed markets that is subject to arrangements similar to preferencing.

[40] The options markets are not included in this discussion because substantial multiple trading of options has only recently begun, and they have not yet established intermarket linkages between market centers. In addition, the options markets have not been subject to a variety of national market system rules. The Commission, however, has ordered the options markets to develop a linkage plan for multiply-traded options. Securities Exchange Act Release No. 42029 (Oct. 19, 1999), 64 FR 57674.

[41] *See, e.g.,* Exchange Act Rule 11Ac1–1, 17 CFR 240.11Ac1–1; Exchange Act Rule 11Ac1–4, 17 CFR 240.11Ac1–4; NASD Rule 4613; NYSE Rule 60.

[42] Customers can request that their orders not be displayed. Exchange Act Rule 11ac1–4(c)(2).

[43] Source: NYSE.

[44] NASD, <http://www.marketdata.nasdaq.com> (visited Dec. 11, 1999).

[45] Securities Exchange Act Release No. 42344 (Jan. 18, 2000), 65 FR 3987.

limit order is isolated and denied an opportunity to interact with investor orders that are executed by a market maker as principal. In contrast, on an *intra*-market basis, market makers generally are not permitted to execute a trade as principal while holding a customer limit order at the execution price.[46] Further, in exchange markets (for example, the NYSE), the specialist usually is unable to trade ahead of any public order at the same price. In Item IV.C.2.d below, comment is requested on whether market makers should be prohibited from trading ahead of previously displayed and accessible investor limit orders, no matter where such orders are held in the national market system.

c. *Broker's Duty of Best Execution.* In accepting orders and routing them to a market center for execution, brokers act as agents for their customers and owe them a duty of best execution. The duty is derived from common law agency principles and fiduciary obligations. It is incorporated both in self-regulatory organization rules and, through judicial and Commission decisions, in the antifraud provisions of the federal securities laws. The duty requires a broker to seek the most favorable terms reasonably available under the circumstances for a customer's transaction.[47]

A broker's duty of best execution applies to both customer market orders and customer limit orders. In the past, much of the focus of best execution concerns has been directed to brokers' handling of market orders, for which obtaining the best price is the single most significant factor. Although the Commission has stated that a broker does not necessarily violate its duty of best execution by internalizing its agency orders or receiving payment for order flow,[48] the duty also is not necessarily satisfied by routing orders to a market center that merely guarantees an execution at the NBBO (as is often done by market centers that internalize or offer payment for order flow). Some market centers offer the potential for ''price improvement'' to market orders—an execution at a price more favorable than the NBBO. On the NYSE, for example, brokers on the floor may hold undisplayed orders (such as a large order from an institutional investor that likely would move the market if displayed). The NYSE's floor provides an opportunity for this undisplayed trading interest to interact with incoming orders and can lead to executions at prices better than those displayed in the NYSE's quotes. In addition, some over-the-counter market makers offer an opportunity for price improvement for market orders. A broker must take these price improvement opportunities into consideration in deciding where to route its customers' orders.[49]

Price is not the sole factor that brokers can consider in fulfilling their duty of best execution with respect to customer market orders. The Commission has stated that a broker also may consider factors such as: (1) The trading characteristics of the security involved; (2) the availability of accurate information affecting choices as to the most favorable market center for execution and the availability of technological aids to process such information; and (3) the cost and difficulty associated with achieving an execution in a particular market center. [50]

With respect to customer *limit* orders, brokers also may assess the foregoing non-price factors in fulfilling their duty of best execution. A critical factor for non-marketable limit orders, however, is that they be routed to the market center that provides the greatest likelihood of execution. The importance of this factor is a corollary to the greatest risk of using limit orders as compared with market orders—that they will not be executed and will miss the market. Determining the market center that provides the greatest likelihood of execution is not, however, a straightforward matter. It will depend on a variety of factors, including the depth of the limit order books in the various market centers (or the number of limit orders already held by a market maker) and the flow of incoming orders that will satisfy the existing limit orders with time priority. Moreover, a broker may not have access to information concerning these factors that is sufficient to make a reasoned decision. Thus, obtaining best execution of customer limit orders under the current market structure can be a difficult task for brokers.

B. Commission's Regulatory Role in Overseeing the National Market System

Section 11A of the Exchange Act charges the Commission with maintaining and strengthening a national market system for securities. In fulfilling this responsibility, the Commission has not attempted to dictate the ultimate structure of the securities markets. Instead, it has sought to establish, monitor, and strengthen a framework that gives the forces of competition sufficient room to flourish and that allows the markets to develop according to their own genius. The Commission remains committed to allowing the forces of competition to shape market structure in the first instance.

In implementing this strategy, the Commission has acted when necessary to address practices that inhibit or distort competition and stand in the way of the development of fairer and more efficient trading mechanisms. For example, in 1996, after an extensive investigation of the over-the-counter market, the Commission adopted rules that included a requirement for the display of customer limit orders that improve the market for a security (''Order Handling Rules'').[51] Some believed that the Order Handling Rules would weaken competition between different types of market centers. The Commission, however, determined that the rules, by providing greater price transparency and enhancing public price discovery, would both foster quote competition among market makers and introduce new price competition from customer limit orders.[52] This determination has been confirmed by the narrowing of quoted spreads and reduction in transaction costs in the Nasdaq market after implementation of the Order Handling Rules. For example, one study of the implementation noted that ''[o]ur results confirm that many of the objectives of the SEC have been met. We find that quoted and effective spreads narrow by approximately 30 percent, with the largest benefit accruing to investors in stocks with relatively wide spreads prior to the implementation of the new SEC rules.'' [53]

[46] *See, e.g.,* NYSE Rule 92(b) (prohibiting members from trading ahead of customer limit orders held by the member); Manning II, note 33 above (prohibiting market makers from trading ahead of their customer limit orders in Nasdaq securities); NASD Rule 6440(f)(2) (prohibiting members from trading ahead of their customer limit orders in listed equity securities traded in the over-the-counter market).

[47] *See* Order Handling Rules Release, note 25 above, section III.C.2.

[48] *See id.* at n.360 and accompanying text.

[49] *See id.* at nn.356–357 and accompanying text.

[50] *See* Preferencing Report, note 24 above, at 89 n.207.

[51] Order Handling Rules Release, note 25 above.

[52] *Id.* at nn.48–64, 75–89 and accompanying text.

[53] Michael J. Barclay et al., *Effects of Market Reform on the Trading Costs and Depths of Nasdaq Stocks,* 54 J. Finance 1, 3, 16 (Feb. 1999) (''We find that effective spreads decline across all trade sizes, but the decline is particularly dramatic for smaller trades.''); *see also* Hendrik Bessembinder, *Trade Execution Costs on NASDAQ and NYSE: A Post-Reform Comparison,* 34 J. Finance & Quantitative Analysis 387, 400 (Sept. 1999) (''The different results observed here for 1997 as compared to the

Because the securities markets are subject to an existing regulatory scheme that shapes the competition among market centers and among brokers, it is the Commission's task continually to monitor market conditions and competitive forces and to evaluate whether the structure of the national market system as it evolves is achieving its Exchange Act objectives. To achieve these objectives at times requires cooperation between market centers, or the establishment of market-wide standards that benefit the overall market, rather than particular market participants. In these cases, leaving market structure developments to the action of individual market centers, without consideration of the needs of the broader market, could result in a market structure that is deficient for investors and capital formation.

Congress directed the Commission, with the benefit of the public's comments and careful deliberation, to remove barriers to competition and to provide investors with the fairest and most efficient markets possible. As noted in the Introduction, the Commission is concerned that the fragmentation of trading interest among competing market centers not inappropriately isolate orders, interfering with vigorous price competition, public price discovery, the best execution of investor orders, and market liquidity. After reviewing the comments submitted in response to this release, the Commission will consider whether it is necessary to take regulatory action to address market fragmentation.[54]

C. Requests for Comment

The Commission requests the views and data of commenters in general on whether fragmentation is now, or may become in the future, a problem that significantly detracts from the fairness and efficiency of the U.S. markets and, if so, on specific proposals to address the problem. To assist commenters, this Item IV identifies and requests comment on a variety of issues relating to market fragmentation that have been the subject of debate in recent months, as well as six potential options for addressing fragmentation.

The Commission wishes to emphasize that it is concerned with the entire range of securities in the markets, not just the very top tier of actively-traded issues. Accordingly, commenters should consider the applicability of their views and proposals in terms of the most actively-traded issues (for example, the top 200 equity issues), the middle tiers, and the bottom tiers that are much less actively traded. Although equity issues in the top tier generally have quoted spreads of $1/16$th, these spreads are substantially narrower than the quoted spreads of the majority of issues. For example, the average NYSE volume-weighted quoted spread for all 3114 of its listed companies in 1998 was $0.15.[55] Similarly, although the average volume-weighted quoted spread for the top 1% of Nasdaq equities by market capitalization was less than $0.10 in September 1999, the average quoted spread for the next 19% of issues was greater than $0.20, and the average *relative* spread (quoted spread as a percentage of stock price) for the next 80% of Nasdaq issues ranged from approximately 1% to 8%.[56] In this regard, the Commission does not believe that its task is to ascertain whether the current quoted or effective spreads reflect an ''optimum'' or ''ideal'' level of efficiency. Rather, the relevant question is much more pragmatic — whether the efficiency of the markets for all or any particular category of securities could be substantially improved through market structure changes. Ultimately, only fair and vigorous competition can be relied upon to set efficient prices.

Finally, commenters should be aware that decimal pricing of securities will be introduced to the markets in the coming months and a reduced quoting increment could significantly change current market dynamics. For example, quoting in penny increments could lead to a narrowing of quoted and effective spreads which could, in turn, make internalization and payment for order flow less attractive to market makers. It also could increase the ability of professionals with ready access to the markets to step ahead of publicly displayed trading interest merely by improving prices by a very small amount, which could discourage investor use of public limit orders. Commenters should consider the extent to which their comments will be affected by the initiation of decimal pricing.

1. Effect of Fragmentation on the Markets

a. *Fragmentation in General.* To what extent is fragmentation of the buying and selling interest in individual securities among multiple market centers a problem in today's markets? For example, has fragmentation isolated orders, hampering quote competition, reducing liquidity, or increasing short-term volatility? Has fragmentation reduced the capacity of the markets to weather a major market break in a fair and orderly fashion?

Is fragmentation in the listed equity markets likely to increase with the elimination of off-board trading restrictions, such as NYSE Rule 390?

In the existing over-the-counter market, what are the incentives for investors and dealers to quote aggressively?

If fragmentation is a problem, are competitive forces, combined with the existing components of market structure that help address fragmentation (price transparency, intermarket linkages to displayed prices, and a broker's duty of best execution), adequate to address the problem?

Will the greater potential provided by advancing technology for the development of broker order-by-order routing systems, or for informed investors to route their own orders to specific market centers, address fragmentation problems without the need for Commission action?

b. *Internalization and Payment for Order Flow.* What proportion of order flow currently is subject to internalization and payment for order flow arrangements in the listed equity and Nasdaq equity markets? Will the proportion increase in the listed equity

1994 estimates [of average realized spreads] suggest that the new SEC order-handling rules have benefited small NASDAQ traders the most.''); Jeffrey W. Smith, *The Effects of Order Handling Rules and 16ths on Nasdaq: a Cross-Sectional Analysis,* NASD Working Paper 98–02 (Oct. 29, 1998), at 17 (''The OHR [Order Handling Rules] and 16ths had a major spread-reducing effect on Nasdaq stocks * * * For most stocks, the OHR had a much larger role in reducing spreads than did 16ths, accounting for roughly 85% of the reduction.'') (available at <http://www.academic.nasdaq.com>); *cf.* Justin Schack, *Cost Containment,* Institutional Investor, Nov. 1999, at 43 (study of the trading costs of 150 large institutions found that ''the average cost of executing a trade on the Nasdaq Stock Market fell by 23 percent in 1998, to 29.9 basis points from 39 basis points, the third straight year of decline'').

[54] The Exchange Act grants the Commission ample authority to address market fragmentation. Section's 6, 15A, and 19 provide substantial authority to assure that the rules of the self-regulatory organizations further the national market system. Section 11A(a)(3) authorizes the Commission to require the self-regulatory organizations to act jointly in establishing the national market system. In addition, Section 11A(c)(1)(E) grants the Commission rulemaking authority to assure that brokers route their customer orders in a manner consistent with the establishment and operation of a national market system. Finally, Section 15(c)(5) grants the Commission rulemaking authority to establish standards for over-the-counter market makers that are necessary or appropriate to remove impediments to, and to perfect the mechanism of, a national market system.

[55] NYSE, *1998 Fact Book* 20. It should be noted that, because of price improvement opportunities, the average *effective* NYSE spread will be less than the average *quoted* spread. *See* note 20 above for a definition of the effective spread.

[56] NASD, <http://www.marketdata.nasdaq.com) (visited Dec. 11, 1999>.

markets as a result of the elimination of off-board trading restrictions?

Is it possible for a non-dominant market center to compete successfully for order flow by price competition, without using internalization and payment for order flow arrangements? If not, is the inability to obtain access to order flow through price competition a substantial reason for the existence of internalization and payment for order flow arrangements?

To what extent can brokers compete as effectively for retail business based on execution quality (or implicit transaction costs), as opposed to commissions (or explicit transaction costs) and other services?

Do investor market orders that are routed pursuant to internalization and payment for order flow arrangements receive as favorable executions as orders not subject to such arrangements? Even if these orders subject to internalization and payment for order flow arrangements receive comparable executions, does the existence of such arrangements reduce the efficiency of the market as a whole (by, for example, hampering price competition) so that its market orders receive less favorable executions than they otherwise would if there were no internalization or payment for order flow?

Even if internalization and payment for order flow arrangements increase the fragmentation of the markets, are any negative effects of increased fragmentation outweighed by benefits provided to investors, such as speed, certainty, and cost of execution?

c. *Best Execution of Investor Limit Orders.* Does increased fragmentation of trading interest reduce the opportunity for best execution of investor limit orders? Are brokers able to make effective judgments concerning where to route limit orders so as to obtain the highest probability of an execution?

Does the opportunity for brokers to share in market maker profits through internalization or payment for order flow arrangements create an economic incentive to divide the flow of investor limit orders from investor market orders among different market centers? If so, does this adversely affect the opportunity for investor limit orders to be executed fairly and efficiently?

Is it consistent with national market system objectives (such as efficiency, best execution of investor orders, and an opportunity for investor orders to meet without the participation of a dealer) for market makers to trade ahead of previously displayed investor limit orders held by another market center (that is, trade as principal at the same price as the limit order price)? Does this practice significantly reduce the likelihood of an execution for limit orders by reducing their opportunity to interact with the flow of orders on the other side of the market? Does the practice offer any benefits that outweigh whatever adverse effects it might have on limit order investors?

2. Possible Options for Addressing Fragmentation

If action to address fragmentation is determined to be necessary or appropriate to further the objectives of the Exchange Act, a variety of approaches could be considered. Six options are briefly described below, followed by requests for comment that relate specifically to each one. The options could apply either individually or in some combination with one another. If commenters believe fragmentation should be addressed, they also are encouraged to submit any additional options for addressing fragmentation that they consider feasible.

a. *Require Greater Disclosure by Market Centers and Brokers Concerning Trade Executions and Order Routing.* The Commission could require greater disclosure by market centers and brokers concerning their trade executions and order routing. Such disclosures could enable investors to make more informed judgments concerning the quality of executions provided by their brokers, as well as enable brokers and the general public to make more informed judgments concerning the quality of trade executions at all market centers.

For example, all market centers could be required to provide uniform, publicly available disclosures to the Commission concerning all aspects of their trading and their arrangements for obtaining order flow. These disclosures could include the nature of their order flow (for example, the ratio of limit orders to market orders), their effective spreads for market orders for different types of securities (for example, securities that have different levels of trading), their percentage of market orders that receive price improvement, their speed in publicly displaying limit orders, their fill rates for different types of limit orders (for example, those with between-the-quotes and at-the-quotes limit prices), and their average time-to-fill for different types of limit orders. In addition, market centers could be required to make available comprehensive databases of raw market information that will allow independent analysis and interpretation by brokers, academics, the press, and other interested parties.

Brokers, in turn, could be required to provide disclosures to their customers (and to the Commission for public availability) concerning the proportion and types of orders that are routed to different market centers, their arrangements with market centers for routing customer orders, and the results they have obtained through these arrangements.

What would be the advisability and practicality of this option? Would it effectively address the problems presented by market fragmentation?

Is there an effective and practical way to provide clear and useful disclosure to retail customers concerning execution quality? If not, does the difficulty of providing such disclosure preclude brokers from competing effectively on the basis of execution quality?

b. *Restrict Internalization and Payment for Order Flow.* The Commission could restrict internalization and payment for order flow arrangements by reducing the extent to which market makers trade against customer order flow by matching other market center prices. Market makers would thereby be less assured of the profits that can be earned by trading against directed order flow and that are used to fund the economic inducements offered to brokers for their customers' order flow. For example, the NYSE has requested that the Commission take this type of action to address internalization.[57] Under the NYSE proposal, broker-dealers would be limited in the extent to which they could trade as principal with their customers' market and marketable limit orders. A broker-dealer could buy from or sell to its customer only at a price that was better than the NBBO for the particular security. This type of prohibition could be extended to all market centers that receive orders pursuant to a payment for order flow arrangement, in addition to internalizing broker-dealers.

What would be the advisability and practicality of this option? Would it effectively address the problems presented by market fragmentation?

Would restricting internalization and payment for order flow arrangements unduly interfere with competition among market centers to provide trading services based on factors other than price, such as speed, reliability, and cost of execution?

c. *Require Exposure of Market Orders to Price Competition.* As a means to enhance the interaction of trading interest, the Commission could require

[57] *See* Item 11.A.1 above for a fuller description of the NYSE proposal.

that all market centers expose their market and marketable limit orders in an acceptable way to price competition. As one example of acceptable exposure, an order could be exposed in a system that provided price improvement to a specified percentage of similar orders over a specified period of time. As another example of acceptable exposure, a market maker, before executing an order as principal in a security whose quoted spread is greater than one minimum variation, could publish for a specified length of time a bid or offer that is one minimum variation better than the NBBO. The Commission proposed such a rule for public comment in 1995 at the time it proposed the Order Handling Rules.[58] Although it believed that an opportunity for price improvement could contribute to providing customer orders with enhanced executions, the Commission chose not to adopt the proposed rule at the time it adopted the Order Handling Rules. Instead, it stated that it was deferring action to provide an opportunity to assess the effects that the Order Handling Rules would have on the markets.[59]

What would be the advisability and practicality of this option? Would it effectively address the problems presented by market fragmentation?

Are there effective means of representing undisclosed orders in markets in which trading interest is divided among many different market centers? Would exposure of market orders through the quote mechanism provide a viable means of allowing the holders of undisclosed orders (particularly large orders) to interact with market orders? What other means to facilitate the interaction of undisclosed and disclosed orders is feasible and practical?

Would requiring the exposure of market orders to price competition unwarrantedly delay the execution of those orders? If so, should order exposure be offered as a choice to customers?

How would implementation of this option affect the opportunity for execution of displayed trading interest at the NBBO?

d. *Adopt an Intermarket Prohibition Against Market Makers Trading Ahead of Previously Displayed and Accessible Investor Limit Orders.* The Commission also could establish intermarket trading priorities as a means to address fragmentation. One option would be to adopt an intermarket prohibition against market makers (including exchange specialists) using their access to directed order flow to trade ahead of investor limit orders that were previously displayed by any market center and accessible through automatic execution by other market centers. Under this option, each market center would be responsible for providing notice to other market centers of the price, size, and time of its investor limit orders that were entitled to priority, as well as participate in a linkage system that allowed automatic execution against the displayed trading interest.[60] To execute a trade as principal against customer order flow, market makers would be required to satisfy, or seek to satisfy, investor limit orders previously displayed and accessible at that price (or a better price) in all market centers.[61]

To reward market makers willing to add liquidity to the markets through aggressive quote competition (as well as participate in public price discovery), a market maker could be allowed to trade with customers at its quote ahead of a *subsequently* displayed investor limit orders under certain circumstances. For example, a market maker could trade as principal against a customer order if, at the time it received a customer order, its quote was at the NBBO; its quote was widely displayed and accessible through automatic execution at a size at least equal to the customer order; and the market maker satisfied, or sought to satisfy, all investor limit orders that were displayed prior to the market maker's quote.

What would be the advisability and practicality of this option? Would it effectively address the problems presented by market fragmentation?

Would prohibiting market makers from trading ahead of investor limit orders, regardless of where the order entered the national market system, facilitate a broker's ability to obtain best execution of its customers' limit orders?

Would an intermarket prohibition against market makers trading ahead of previously displayed and accessible limit orders encourage price competition and thereby enhance the efficiency of the market as a whole?

Would implementation of this option reduce the willingness or capacity of market makers to supply liquidity? If so, would the problem be addressed by allowing market makers to trade at their quotations after satisfying previously displayed investor limit orders?

Would this option be feasible without the establishment of a single, intermarket limit order file?

e. *Provide Intermarket Time Priority for Limit Orders or Quotations that Improve the NBBO.* As another option for encouraging price competition, the Commission could establish intermarket trading priorities that granted time priority to the *first* limit order or dealer quotation that improved the NBBO for a security (that is, the order or quotation that either raised the national best bid or lowered the national best offer). To qualify for such priority, the limit order or quotation would have to be widely displayed and accessible through automatic execution. Only the first trading interest at the improved price (''Price Improver'') would be entitled to priority. No market center could execute a trade at the improved or an inferior price unless it undertook to satisfy the Price Improver. Subsequent orders or quotations that merely matched the improved price would not be entitled to any enhanced priority. If, prior to satisfaction of the Price Improver, another order or quotation was displayed and accessible at an even better price, the existing Price Improver would be superseded and permanently lose its priority. The subsequent trading interest at the better price would be the new Price Improver.

What is the advisability and practicality of this option? Would it effectively address the problems presented by market fragmentation? Would it discourage competition among market centers or reduce market makers' willingness to supply liquidity?

Would granting time priority only to the first trading interest to improve the NBBO provide an adequate incentive for aggressive price competition?

How difficult would it be to implement this limited type of intermarket time priority? Would it require substantial modifications of currently existing linkage systems?

f. *Establish Price/Time Priority for All Displayed Trading Interest.* To assure a high level of interaction of trading interest, the Commission could order the establishment of a national market linkage system that provides price/time priority for all displayed trading interest. Under this option, the displayed orders and quotations of all market centers would be displayed in the national linkage system (''NLS''). All

[58] Securities Exchange Act Release No. 36310 (Oct. 6, 1995), 60 FR 52792 (proposed Rule 11Ac1–5—Price improvement for customer market orders).

[59] Order Handling Rules Release, note 25 above, section III.C.1

[60] Comment is requested on whether intermarket priority should be extended to the ''reserve size'' orders used by some market centers to facilitate the trading of large investors.

[61] For purposes of this option, an ''investor'' limit order could be defined as all limit orders other than those placed for the benefit of a broker-dealer. If necessary or appropriate to maintain a fair and orderly market, the definition also could exclude limit orders placed for the benefit of professional traders (for example, any trader who repeatedly buys and sells a security within a short time-frame).

NLS orders and quotations would be fully transparent to all market participants, including the public. Orders and quotations displayed in the NLS would be accorded strict price/time priority. Market makers could execute transactions as principal only if they provided price improvement over the trading interest reflected in the NLS. Trading interest in the NLS could be executed automatically; however, the NLS would not be a market center itself: executions would continue to occur at the level of individual market centers. Public access to the NLS would be provided through self-regulatory organizations, alternative trading systems, and broker-dealers. The NLS could be administered and operated by a governing board made up of representatives from the public and relevant parts of the securities industry.

What is the advisability and practicality of this option? Would it effectively address the problems presented by market fragmentation?

Has advancing technology and increased trading volume created more favorable conditions for the establishment of a national market linkage system at the current time than at any time in the past? What would be the respective benefits and costs of such a system?

Would a national market linkage system with strict price/time priority and automatic execution provide the most efficient trading mechanism? If so, why have competitive forces failed to produce such a system without the necessity for Commission action? Are there any regulatory rules or industry practices blocking competitive forces that otherwise would produce such a system? If so, what are they and how should they be addressed?

Would a mandated national market linkage system substantially reduce the opportunity for competition among market centers to provide trading services? If so, would the costs of reduced market center competition outweigh the benefits of greater interaction of trading interest?

Would implementation of a comprehensive national market linkage system effectively require the creation of a single industry utility? How should a national market linkage system be governed?

Should there be any exceptions from the requirement that all orders yield price/time priority to trading interest reflected in a national market linkage system? For example, should there be an exception for block transactions or for intra-market agency crosses at the NBBO?

Should a national market linkage system incorporate a reserve size function to facilitate the submission of large orders?

V. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the NYSE's proposed rule change and the Commission's request for comment on market fragmentation, including whether the NYSE's proposed rule change is consistent with the Exchange Act. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street N.W., Washington, D.C. 20549–0609. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of the NYSE's proposal also will be available for inspection and copying at its principal office. All submissions should refer File No. SR–NYSE–99–48. Comments on the NYSE's proposed rescission of Rule 390 should be submitted by March 20, 2000. Comments responding to the Commission's request for comments on market fragmentation (including the NYSE's request for rulemaking action) should be submitted by April 28, 2000.

By the Commission.

Jonathan G. Katz,

Secretary.

[FR Doc. 00–4595 Filed 2–25–00; 8:45 am]

BILLING CODE 8010–01–P

SMALL BUSINESS ADMINISTRATION

[Declaration of Disaster #3237]

State of Georgia

As a result of the President's major disaster declaration on February 15, 2000, I find that Colquitt, Grady, Mitchell, and Tift Counties in the State of Georgia constitute a disaster area due to damages caused by severe storms and tornadoes that occurred on February 14, 2000. Applications for loans for physical damage as a result of this disaster may be filed until the close of business on April 15, 2000 and for economic injury until the close of business on November 15, 2000 at the address listed below or other locally announced locations: U.S. Small Business Administration, Disaster Area 2 Office, One Baltimore Place, Suite 300, Atlanta, GA 30308.

In addition, applications for economic injury loans from small businesses located in the following contiguous counties may be filed until the specified date at the above location: Baker, Berrien, Brooks, Cook, Decatur, Dougherty, Irwin, Thomas, Turner, and Worth Counties in Georgia, and Gadsden and Leon Counties in Florida.

The interest rates are:

	Percent
For Physical Damage:	
Homeowners with credit available elsewhere	7.625
Homeowners without credit available elsewhere	3.812
Businesses with credit available elsewhere	8.000
Businesses and non-profit organizations without credit available elsewhere	4.000
Others (including non-profit organizations) with credit available elsewhere	6.750
For Economic Injury:	
Businesses and small agricultural cooperatives without credit available elsewhere	4.000

The number assigned to this disaster for physical damage is 323712, and for economic injury the numbers are 9G7000 for Georgia and 9G7100 for Florida.

(Catalog of Federal Domestic Assistance Program Nos. 59002 and 59008.)

Dated: February 18, 2000.

Bernard Kulik,

Associate Administrator for Disaster Assistance.

[FR Doc. 00–4599 Filed 2–25–00; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Declaration of Disaster #3212; Amendment #6]

State of North Carolina

In accordance with information received from the Federal Emergency Management Agency dated February 17, 2000, the above-numbered Declaration is hereby amended to extend the deadline for filing applications for physical damage as a result of this disaster from February 17, 2000 to February 29, 2000.

All other information remains the same, *i.e.,* the deadline for filing