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Market Making in the Electronic Age

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I. INTRODUCTION

In 1974, an investor making his first purchase of stock might look in the newspaper and see that IBM, one of the hottest technology stocks of the day, is trading at $230. The investor might then call a stockbroker to place an order to purchase 500 shares. The investor's broker would call a representative of the firm on the floor of the New York Stock Exchange, who would find someone else on the floor of the exchange willing to execute, or "fill," the order. The transaction might cost the investor $200, and be filled at a price of $230¼. Although the novice investor may not think about the manner in which his broker fills the order, the investor's brokerage firm has a duty of "best execution," i.e., an obligation to fill the investor's order in a manner most favorable to the investor, including obtaining the best price.[1]

In 2000, the same investor, now much more seasoned, pulls up a real-time quote for Cisco Systems, one of the day's hottest technology stocks, through an online brokerage account. He sees that the stock is trading at 30 "bid," 30¼ "offer,"[2] and places a buy order for 500 shares through his online account, which is executed almost immediately at the offer price of 30¼. As the stock is a Nasdaq stock, the order will not be routed to the floor of an exchange. It may not even make it to one of

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1. *Infra* Part V.A (discussing duty of best execution).

2. The bid price is the price at which broker-dealers operating in a particular market are willing to buy shares of stock, and the offer price, also sometimes called the "asked" or "ask" price, is the price at which they are willing to sell. 17 C.F.R. § 240.11 Ac1-1(a)(4) (2000). The difference between the bid and offer prices is known as the "spread." Report Pursuant to Section 21(a) of the Securities Exchange Act of 1934 Regarding the NASD and the Nasdaq Market, Exchange Act Release No. 37,542, 52 S.E.C. Docket (CCH) 882 (Aug. 8, 1996), *available at* 1996 SEC LEXIS 2123, at *29 (S.E.C.) [hereinafter Section 21(a) Report].

the dealers who collectively "make" the Nasdaq market.[3] The broker-dealer with whom the customer places the order may itself sell the customer the stock, at 30¼, which is the best offer price currently shown on the Nasdaq market. The customer pays a commission of only $9.99 for the trade. Two seconds after his order is executed, however, an order to sell 500 shares at 30⅛ goes unfilled. The investor, now much more familiar with best execution, questions whether he should have been able to buy these 500 shares at 30⅛.

The electronic age has had an effect on trading that extends far beyond commission rates. Largely driven by advances in technology, the structure of the markets to which an investor's order may be routed are themselves undergoing a major change. Not only do orders not necessarily get sent to the floor of an exchange, it is not clear whether, in five years, there will even *be* a floor of the exchange. As competitive factors alter the structure of markets, the Securities and Exchange Commission ("SEC" or "Commission") must wrestle with the issues of which market structures will survive and how the markets will be regulated to ensure, among other things, that investors receive "best execution."

This article provides a brief history of the United States securities markets and the self-regulatory structure for these markets and furnishes background on the structure of the nation's dominant and emerging securities markets.[4] Next, it discusses the Congressional mandate for a national market system, which was announced in 1975, and the progress that has been made to date regarding the creation of such a system.[5] This article then describes the principles governing the execution of customer orders, the rise of trading systems known as electronic communications networks, and the manner in which the Securities and Exchange Commission has chosen to regulate them.[6] The article follows with a discussion of the development of Nasdaq, from a system of disseminating quotations to a major stock market.[7]

Next, the article summarizes some of the major issues central to the ongoing debate on the structure of the United States securities markets and the execution of customer orders, including payment for order flow

3. The Nasdaq market does not have a trading floor, but rather consists of broker-dealers who enter quotes into an automated system and purchase stock from, or sell to, customers. *Infra* Part II.C (discussing the difference between the two dominant U.S. securities markets: the NYSE and Nasdaq).

4. *Infra* Parts II-III.

5. *Infra* Part IV.

6. *Infra* Parts V-VI.

7. *Infra* Part VII.

and the fees charged by securities markets for market data.[8] It also discusses problems with the current self-regulatory structure.[9] This article encourages the Securities and Exchange Commission to scrupulously avoid any regulations that would overtly or effectively mandate the structure of a single central market, and instead promote fair competition among markets by allowing Electronic Communications Networks and other alternative trading systems to access the facilities of the national market system. Similarly, the article recommends that the Commission allow competitive forces to determine the size of the fees that securities markets charge for quote and transaction information. Finally, the article expresses the view that a single self-regulatory organization for the securities industry is needed in light of the conflicts of interest inherent in the current self-regulatory system, which current market trends have exacerbated.[10]

II. BACKGROUND ON UNITED STATES SECURITIES MARKETS

One of the causes of the current debates regarding the structure and regulation of the U.S. securities markets is the fact that the accelerating rate of development of these markets has taxed the ability of Congress and the SEC to develop an adequate regulatory structure for them. This section will discuss the basic regulatory structure for the securities markets contained in the Securities Exchange Act of 1934 (the "Exchange Act"), the history of the U.S. securities markets, and the basic differences between the two dominant U.S. securities markets—the New York Stock Exchange ("NYSE") and The Nasdaq Stock Market, Inc. ("Nasdaq"). It will conclude with a discussion of the development of Electronic Communications Networks ("ECNs"), which were not envisioned at the time of the adoption of the Exchange Act.

A. *Historic Structure Under the Exchange Act*

In passing the Exchange Act, Congress envisioned securities markets in which customers transacted business through broker-dealers and transactions were executed primarily on national exchanges. Before the Exchange Act, broker-dealers were regulated only by the exchanges on which they were members. After passage of the Exchange Act, the newly-formed SEC regulated both the exchanges and broker-dealers, which remained subject to exchange regulation as well.[11] Shortly after

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8. *Infra* Parts VIII-X.
9. *Infra* Parts VIII-X.
10. *Infra* Part XI.
11. H.R. CONF. REP. NO. 1838 (1934).

the passage of the Exchange Act, Congress embraced the concept of registered securities associations that, together with national exchanges and registered clearing agencies, are known as "self-regulatory organizations."[12]

Brokerage firms typically act at different times as either a "broker"[13] or a "dealer"[14] and are, therefore, referred to as "broker-dealers." Acting as either a broker or dealer requires registration with the Commission.[15] A firm that receives a customer order and transmits it to a market or third party for execution, but does not itself buy or sell the security, is acting as a broker, and this type of transaction is known as an agency transaction.[16] A firm that buys a security for its own account, whether from a customer or another brokerage firm, is acting as a dealer. A transaction in which a broker-dealer buys or sells for its own account is known as a principal transaction.[17]

The Exchange Act prohibits broker-dealers from engaging in transactions on an exchange[18] that is either not registered as a "national securities exchange" under Section 6 of the Exchange Act or is exempt from registration.[19] Accordingly, any system meeting the definition of "exchange" must register as a "national securities exchange" under Section 6 of the Exchange Act or find an exemption from registration.[20]

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12. Securities Exchange Act of 1934, 15 U.S.C.A. § 78c(a)(26) (West 1997 & Supp. 2000).

13. Section 3(a)(4) of the Exchange Act defines the term "broker" to include "any person engaged in the business of effecting transactions in securities for the account of others." *Id.* § 78c(a)(4)(A).

14. Section 3(a)(5) of the Exchange Act defines "dealer" to include "any person engaged in the business of buying and selling securities for such person's own account through a broker or otherwise." *Id.* § 78c(a)(5)(A). Section 3(a)(5) excepts from the definition of "dealer" persons whose purchases and sales of securities for their own account are not part of a regular business, and banks which engage in specified activities. *Id.*

15. *Id.* § 78o(a)(1).

16. *See* Disclosure of Order Routing and Execution Practices, Exchange Act Release No. 43,084, 72 S.E.C. Docket (CCH) 2312 (July 28, 2000) *available at* 2000 WL 1092311, at *5 (S.E.C.) [hereinafter Execution Disclosure Proposing Release].

17. *See* Dissemination and Display of Transaction Reports and Quotation Information, Exchange Act Release No. 15,251, 15 S.E.C. Docket (CCH) 1370 (October 20, 1978), *available at* 1978 WL 19978, at *13 n.54 (S.E.C.).

18. Section 3(a)(1) of the Exchange Act defines "exchange" as follows:

> [A]ny organization, association, or group of persons, whether incorporated or unincorporated, which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood, and includes the market place and the market facilities maintained by such exchange.

15 U.S.C.A. § 78c(a)(1).

19. *Id.* § 78e.

20. There are no substantive criteria which distinguish a "national securities exchange" from

Exchanges are subject to substantial regulation under Section 6 of the Exchange Act and SEC regulations.[21]

The Exchange Act provides that "an association of brokers or dealers may be registered" under Section 15A(b) of the Exchange Act.[22] To become registered as a national securities association, an organization must satisfy numerous criteria designed to ensure that it can carry out self-regulatory responsibilities.[23] Once registered, securities associations are subject to the stringent regulation similar to that imposed on national securities exchanges, including a requirement that their rules be approved by the Commission. The National Association of Securities Dealers, Inc. ("NASD") is the only registered securities association. Broker-dealers are required to become NASD members unless their business is limited to transactions on an exchange.[24] As a result, all broker-dealers must belong to at least one self-regulatory organization.

B. History of United States Securities Markets

The NYSE traces its history to the "Buttonwood Agreement" of 1792, where twenty-four brokers agreed to trade securities under a buttonwood tree on Wall Street.[25] A formal organization, the New York Stock & Exchange Board, was formed in 1817.[26] At this time, stocks were traded one at a time as the president of the Board called their names.[27] In 1863, the market changed its name to the NYSE.[28] In

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an exchange. The only significance of the term "national securities exchange" is that it applies to an exchange registered under Section 6, as distinguished from a system meeting the definition of "exchange" but exempt from registration. *Id.* § 78c(a)(1) (defining "exchange"); § 78f(a) (describing process under which "exchange" registers as a "national securities exchange"). An example of an exchange which has received an exemption from the Commission is the Arizona Stock Exchange, which has limited volume. Order Amending Exemption Order and Granting Amendment to Application for Exemption from Registration as an Exchange under Section 5 of the Securities Exchange Act of 1934, Exchange Act Release No. 37,271, 62 S.E.C. Docket (CCH) 184 (June 3, 1996), *available at* 1996 WL 293566 (SEC) [hereinafter AZX Exemptive Order].

21. For example, exchanges are required to have rules which conform to the dictates of Section 6 concerning, among other things, membership requirements, dues and disciplinary procedures. 15 U.S.C.A. § 78f. The SEC must approve all changes to exchange rules. *Id.* § 78s(b).

22. *Id.* § 78o-3(a).

23. *Id.* § 78o-3(b).

24. *Id.* § 78o(b)(1)(b).

25. *NYSE's Historical Perspective/Timeline*, *at* http://www.nyse.com/about/about.html (last visited Mar. 19, 2001).

26. *Id.*

27. *Id.*

28. *Id.*

1871, the system of trading changed, so that all stocks were traded simultaneously and the brokers for a particular stock stood in one location.[29] Companies must meet certain financial criteria and satisfy other requirements to list their shares on the NYSE.[30]

Historically, the NYSE was considered the most prestigious and liquid market in existence, although Nasdaq would clearly dispute that claim today. Nasdaq had humble beginnings, having arisen out of a study conducted by the SEC in the early 1960s.[31] The study, which was released in 1963, recommended the development of an automated system to address "fragmentation" in the over-the-counter ("OTC") market.[32] The OTC market is used to describe any off-exchange trading. Trading began on the Nasdaq on February 8, 1971, when the system displayed quotes for 2,500 securities.[33]

At its inception, Nasdaq was nothing more than a system within the OTC market, created and operated by the NASD, through which quotes could be displayed. Trades were made exclusively through phone calls between broker-dealers.[34] In 1975, Nasdaq established listing standards which began to distinguish it from the rest of the OTC market.[35] Although many investors view Nasdaq as a stock exchange, it is still part of the OTC market and not an exchange.[36] Nasdaq bills itself as a "stock market," and stocks are "included" in Nasdaq, rather than being

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29. *Id.*

30. The current listing requirements can be found in the NYSE Listed Company Manual, *at* http://www.nyse.com/listed/listed.html (last visited Mar. 19, 2001).

31. *Nasdaq's History & Timeline, at* http://www.nasdaq.com/about/about_nasdaq.stm (last visited Mar. 19, 2001) [hereinafter *History & Timeline*].

32. *Id.* Fragmentation is the dispersal of trading activity over multiple market centers. *Infra* Part IX.A.1 (describing problems market fragmentation creates). The OTC market derived its name from the days in which investors would literally hand their share certificates over the counter to their stockbroker to determine their worth.

33. *Id.* The Nasdaq name originated as an acronym for the full name of the system, the National Association of Securities Dealers Automated Quotation system, but the market's official name is now The Nasdaq Stock Market, Inc. *History & Timeline, supra* note 31; Article I of Plan of Allocation and Delegation of Functions by NASD to Subsidiaries [hereinafter Plan of Allocation and Delegation]; National Association of Securities Dealers, Inc., NASD Manual (CCH) 1101 (1998) [hereinafter NASD Manual].

34. *See* Desmond Smith, *The Wiring of Wall Street*, N.Y. TIMES, Oct. 23, 1983, § 6, at 44.

35. *History and Timeline, supra* note 31.

36. Nasdaq plans, however, to register as an exchange. Order Approving Proposed Rule Change by the National Association of Securities Dealers, Inc. and Amendment Nos. 1, 2, 3, 4, 5, 6, 7 and 8 Thereto and Notice of Filing and Order Granting Accelerated Approval of Amendment No. 9 Relating to the Establishment of the Nasdaq Order Display Facility and Order Collector Facility and Modifications of the Nasdaq Trading Platform, Exchange Act Release No. 43,863 (Jan. 19, 2001), *available at* 2001 SEC LEXIS 112, at *12 (S.E.C.) [hereinafter SuperMontage Adopting Release].

"listed."[37] There are two tiers within Nasdaq: the National Market and the SmallCap Market. The Nasdaq National Market has more stringent listing standards and is a more liquid market than the SmallCap market.[38]

The American Stock Exchange ("Amex") is the world's second largest floor-based exchange, after the NYSE. Amex uses a specialist system like that of the NYSE,[39] but has much more lenient listing requirements.[40] There are also several regional exchanges in the United States.[41] Stocks that cannot satisfy the listing requirements of the exchanges or Nasdaq can be traded through the NASD's OTC bulletin board, which provides real-time quotations but has no listing standards.[42] In January 1999, the Commission approved rule changes by the NASD that limited bulletin board stocks to those of issuers that were current in their periodic filings under the Exchange Act.[43] The lowest tier in the United States securities markets is the "pink sheets," which were formerly a list of quotations printed on pink paper and disseminated daily by the National Quotation Bureau, Inc.[44]

37. *See* NASD Manual, *supra* note 33, Rule 4300, at 5271.

38. *Id.* Rule 4310, at 5275, Rule 4420, at 5391. Securities on the Nasdaq National Market are frequently referred to as "Nasdaq/NMS" securities. *Supra* Part IV.B (describing designation of securities as "National Market System," or "NMS," securities).

39. *Infra* Part II.C.1 (describing the NYSE's specialist system).

40. The current Amex financial listing criteria can be found on the Amex website, at http://www.amex.com/about/amex_listus.stm (last visited Mar. 19, 2001).

41. While considered "regional" by market participants, these exchanges must be registered as national securities exchanges under the Exchange Act. Regulation of Market Information Fees and Revenues, Exchange Act Release No. 42,208, 71 S.E.C. Docket (CCH) 496 (Dec. 9, 1999), *available at* 1999 WL 1125152, at *2 n.1 (S.E.C.). The regional stock exchanges are the Boston Stock Exchange, Inc., the Chicago Stock Exchange, Inc., the Cincinnati Stock Exchange, the Pacific Exchange, Inc. and the Philadelphia Stock Exchange, Inc. *Id.*

42. *See* Order Granting Approval of Proposed Rule Change and Amendment No. 1 to the Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to Microcap Initiatives—Amendments to NASD Rules 6530, 6540, Exchange Act Release No. 40,878, 68 S.E.C. Docket (CCH) 2584 (Jan. 4, 1999), *available at* 1999 WL 1746, at *1 (S.E.C.).

43. While the stated purpose of the rule changes was to address abuses in the market for small stocks, some observers believed that the NASD feared that its association with the bulletin board would taint the powerful Nasdaq brand name, and that it sought to "clean up" the bulletin board to reduce the negative impact of this association. *See* William Hoffman, *Cloudy Future for Bulletin Board Market*, TRADERS, Aug. 1, 2000.

44. The National Quotation Bureau later changed its name to Pink Sheets, LLC, and, befitting the electronic age, now offers real-time quotations on some securities. *See Pink Sheets*, *at* http://www.pinksheets.com (last visited Mar. 19, 2001).

C. Agency and Dealer Markets

While there are numerous exchanges and systems that can now be classified as "securities markets," the mechanics of trade execution is best understood by comparing the differences between the two dominant markets: the NYSE and Nasdaq. The NYSE is the most prominent example of an agency market, i.e., a market that charges a fee for bringing buyers and sellers together and matching their orders.[45] Nasdaq is a dealer market, in which broker-dealers execute trades as principals and are compensated by profits on the trades.[46] However, the NYSE, while it is classified as an agency market, has characteristics of a dealer market, and Nasdaq functions at times as an agency market.[47]

1. New York Stock Exchange

Trading on the floor of the NYSE is essentially an auction in which agents of buyers and sellers gather at a "trading post" and a "specialist" facilitates the auction.[48] The NYSE is a continuous auction market in which orders can be executed any time the exchange is open. The continuous market auction can be distinguished from a call auction market, where, at certain points in the trading day, all open orders are executed when the auction is "called."[49] However, the NYSE uses the call auction feature at the beginning of trading on the exchange and in limited circumstances, such as when large order imbalances arise or trading in a stock is temporarily halted.[50]

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45. *See* 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, Exchange Act Release No. 42,450, S.E.C. Docket (CCH) 1702 (Feb. 23, 2000), *available at* 2000 WL 202094, at *10 (S.E.C.) [hereinafter Concept Release]. Commission releases will generally be cited to the S.E.C. Docket or S.E.C. Reporter and, for ease of retrieval and reference to specific pages, to Westlaw or Lexis. An index of releases organized by topic is available at http://www.sec.gov/rules.shtm (last visited Mar. 19, 2001).

46. Concept Release, *supra* note 45, at *10.

47. *Id.*

48. *The Floor Community/People*, *available at* http://www.nyse.com/floor/people.html (last visited Mar. 19, 2001) [hereinafter *Floor Community/People*]; *Glossary/Specialist*, *available at* http://www.nyse.com/glossary/NT00018226.html (last visited Mar. 19, 2001) [hereinafter *Glossary/Specialist*].

49. *See* MARKET STRUCTURE REPORT OF THE NEW YORK STOCK EXCHANGE SPECIAL COMMITTEE ON MARKET STRUCTURE, GOVERNANCE AND OWNERSHIP 20 (2001), *available at* http://www.nyse.com/pdfs/marketstructure.pdf (last visited Mar. 19, 2001) [hereinafter NYSE MARKET STRUCTURE REPORT]. The Arizona Stock Exchange is a call auction market. AZX Exemptive Order, *supra* note 20, at *1-2. For a discussion of the merits of a call auction system and an argument in favor of extensive use of the call auction system in the U.S. markets, see *Building a Better Stock Market Using Call Auctions*, SEC. INDUS. NEWS, Mar. 20, 2000 (excerpting part of a book by Professor Robert A. Schwartz).

50. NYSE MARKET STRUCTURE REPORT, *supra* note 49, at 20 n.26.

Brokerage firms route NYSE orders either to the specialist's post, through an automated order delivery system known as SuperDot, or to a "floor broker" on the floor of the exchange.[51] There are two primary types of floor brokers: "commission brokers," who work for a broker-dealer and execute orders for its customers, and "independent floor brokers," who work for themselves.[52] Independent floor brokers execute orders for firms that do not have commission brokers or orders which a broker-dealer's commission brokers are too busy to handle.[53] Brokers who gather at a trading post are known as the "crowd."[54] The specialist posts the bid and offer prices of the trading crowd at the specialist's post.[55]

If an order is routed directly to the specialist through the SuperDot system, the specialist, acting as an agent for the party placing the order, finds a broker in the crowd willing to buy or sell the stock while seeking to obtain "price improvement," i.e., a better price for the customer than the current bid, in the case of a sale, or offer, in the case of a buy.[56] The specialist also acts as an agent when a floor broker has a customer limit order that cannot be executed at the current market level and leaves the order with the specialist for later execution.[57] The specialist has no direct involvement in approximately seventy-five percent of orders, for which prices are established by brokers in the trading crowd shouting out bids and offers for the stock, a process known as "open outcry."[58]

A key function of a specialist is to fulfill his or her obligation to maintain "fair and orderly" markets.[59] As part of this obligation,

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51. *Anatomy of a Trade*, *available at* http://www.nyse.com/floor/anatomy.html (last visited Mar. 19, 2001).

52. *Floor Community/People*, *supra* note 48. Independent floor brokers are also called "$2 brokers" because they used to receive a commission of $2 on trades of 100 shares. *Id.*

53. *Id.*

54. *Id.*

55. *Id.*

56. *Anatomy of a Trade*, *supra* note 51.

57. *Floor Community/People*, *supra* note 48; *Glossary/Specialist*, *supra* note 48.

58. *Floor Community/People*, *supra* note 48; *Glossary/Specialist*, *supra* note 48.

59. NYSE Rule 104 and Supplementary Material, N.Y.S.E. Guide (CCH) ¶¶ 2104, 2104.10 (1996) [hereinafter N.Y.S.E. Guide]. The following is the full text of Rule 104:

> No specialist shall effect on the Exchange purchases or sales of any security in which such specialist is registered, for any account in which he, his member organization or any other member, allied member, or approved person, (unless an exemption with respect to such approved person is in effect pursuant to Rule 98) in such organization or officer or employee thereof is directly or indirectly interested, unless such dealings are reasonably necessary to permit such specialist to maintain a fair and orderly market, or to act as an odd-lot dealer in such security.

Id.

specialists try to ensure that changes in stock prices are small from one trade to the next, even if the price is moving dramatically overall. Temporary imbalances between buy and sell orders have the potential to cause large price variations between consecutive transactions. Accordingly, when such an imbalance occurs, specialists buy or sell for their own account to maintain order in the market.[60] Specialists profit both from their receipt of commissions on orders for which they act as agent, and from trading for their own account.[61]

2. Nasdaq

The theory behind the Nasdaq market is that several broker-dealers will act as market makers by providing quotes under which they will buy or sell a particular stock. The competition among the market makers is designed to produce the market price for the security.[62] Broker-dealers can participate in Nasdaq as either an order entry firm or a market maker.[63] Order entry firms can access quotes of market makers and participate in Nasdaq's automated services, but they do not enter quotes for securities.[64] On the other hand, market makers place bids and offer quotes for the securities in which they make markets.[65]

Market participants[66] in Nasdaq enter or access quotes through a workstation, the latest version of which is known as "Nasdaq

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60. *Floor Community/People*, *supra* note 48. For example, after a negative news announcement, there may be more sell orders than buy orders for a particular stock, which ordinarily would cause the price of the stock to immediately drop to a level where the number of market participants willing to buy roughly matches the number seeking to sell. When this imbalance between sell orders and buy orders arises, the specialist will step in to buy shares, providing liquidity for sellers and easing the imbalance. *Id.* With one limited exception, specialists are prohibited from buying or selling for their own account for any other purpose. N.Y.S.E. Guide, *supra* note 59, ¶¶ 2104, 2104.10. The exception is for transactions in odd-lots, i.e., orders for less than the normal unit of trading. *Id.*

61. Neil Weinberg, *The Big Board Comes Back From the Brink*, FORBES, Nov. 13, 2000, *available at* 2000 WL 25963943; Suzanne Woolley, *The Booming Big Board*, BUS. WEEK, Aug. 4, 1997, *available at* 1997 WL 8271186.

62. When all of the market quotes for a stock are considered, the highest bid price by any market maker for the stock is called the "inside bid," and the lowest offer price is known as the "inside offer." 17 C.F.R. § 240.15g3(c)(3), (4) (2000).

63. *Definition of a Market Maker*, *at* http://www.nasdaqtrader.com/trader/tradingservices/tshome.stm (last visited Mar. 19, 2001); *Definition of Order-Entry Service*, *at* http://www.nasdaqtrader.com/trader/tradingservices/marketparticipant/orderentryprocess.stm (last visited Mar. 19, 2001).

64. *Definition of a Market Maker*, *supra* note 63; *Definition of Order-Entry Service*, *supra* note 63.

65. *Definition of a Market Maker*, *supra* note 63; *Definition of Order-Entry Service*, *supra* note 63.

66. The term "market participants" will be used in this article to describe parties with the ability to enter quotes or execute transactions in a particular market, which excludes individual or

Workstation II." Participants can view quotes for any Nasdaq stocks and enter quotes and orders through the Nasdaq workstation.[67] The Workstation II display has two parts.[68] The top portion is used to monitor market information for selected stocks. It has a "Market Minder" window, through which broker-dealers can monitor the inside quotes and last sale information for selected stocks, and a "Dynamic Quote Window," which shows the inside bid and offer, last sale, the day's price change, the day's high and low, and a short sale indicator for selected stocks.[69] The bottom portion of the Workstation display contains the Nasdaq Quotation Montage, which shows market maker identification symbols ("MMIDs") for market makers and other participants quoting prices, and the market participants' quote, including the number of shares, next to the MMID. Market participants' bids and offers are ranked first by price and then by time.[70]

Nasdaq has numerous rules governing the conduct of market makers.[71] For example, Nasdaq market makers must observe Nasdaq's normal trading hours, must maintain "two-sided," i.e., bid and offer, quotations on the securities in which they make markets, and must maintain quotations which are "reasonably related to the prevailing market."[72] Nasdaq also seeks to maintain orderly markets by prohibiting market makers from "locking" or "crossing" the market.[73] A market maker "locks" the market when it enters a bid quotation

institutional investors. The term does include, (for the Nasdaq market) in addition to Nasdaq market making firms, electronic communications networks and some exchanges, because these parties are eligible to enter quotes and execute orders. *Infra* Parts II.D, IV.C (explaining electronic communication networks and unlisted trading privileges).

67. A representation of the Workstation II display is available on the Nasdaq trader website, at http://www.nasdaqtrader.com/trader/tradingservices/productservices/productdescriptions/nwiidescription.stm (last visited Mar. 19, 2001).

68. SuperMontage Adopting Release, *supra* note 36, at *33.

69. *Id.*

70. *Id.* The following roughly illustrates the layout of the quotation montage:

BID			OFFER		
MM1	20	1,000	MM2	20¼	1,500
MM3	19⅞	2,500	MM4	20⅜	2,000
MM2	19¾	1,500	MM3	20¾	800
MM4	19½	700	MM1	20⅞	500

Id. at *4.

71. *See generally* NASD Manual, *supra* note 33, Rules 4611 to 4614, 4616 to 4625, at 5631-5843.

72. NASD Manual, *supra* note 33, Rule 4613, at 5691-95, Rule 4617, at 5781.

73. NASD Manual, *supra* note 33, Rule 4613(e), at 5693-94.

which is equal to the ask quotation of another market maker, or an offer quotation which is equal to the bid quotation of another market maker.[74] A market maker "crosses" the market when it enters a bid quotation which is higher than the offer quotation of another market maker, or an ask quotation which is lower than the bid quotation of another market maker.[75]

D. Electronic Communication Networks

An electronic communications network ("ECN") is an electronic system that collects buy and sell orders for securities and allows the orders to be executed against each other.[76] ECNs do not generally "make markets" in the sense of acting as a principal on trades; instead, they act purely as agents by bringing buyers and sellers together. ECNs place limitations on the parties who may subscribe to their system, and typically charge an access fee. ECNs display subscriber orders, much like Nasdaq displays market maker quotes.[77]

Instinet, the first ECN, actually predates Nasdaq. Instinet was founded in 1969 as a means of allowing institutional money managers to trade directly with each other.[78] In addition to the development of the Internet and communications technology, the development of ECNs was spurred by the SEC's adoption of its Order Handling Rules in September 1996.[79] While the Order Handling Rules were adopted

74. *Id.*

75. *Id.*

76. The technical definition of ECN is contained in SEC Rule 11Ac1-1 as "any electronic system that widely disseminates to third parties orders entered therein by an exchange market maker or OTC market maker, and permits such orders to be executed against in whole or in part." 17 C.F.R. § 240.11Ac1-1(a)(8) (2000) (SEC Rule 11Ac1-1(a)(8)). Under Rule 11Ac1-1, the term ECN does not include: (1) a system that crosses multiple orders at specified times only at a price determined by the system; and (2) a system operated by or on behalf of a market maker that executes orders primarily against the account of the market maker as a principal, other than a riskless principal. *Id.* A "riskless" principal transaction is a transaction in which the broker-dealer technically acts as a principal but has arranged for another party to buy or sell from it, which eliminates the risk normally associated with a principal transaction. Confirmation of Transactions, Exchange Act Release No. 33,743, 56 S.E.C. Docket (CCH) 558 (Mar. 9, 1994), *available at* 1994 WL 73633, at *2 n.11 (S.E.C.).

77. Island, one of the major ECNs, makes its order display available to the public through its "BookViewer." The BookViewer is one of the best ways to view the operation of an ECN in real time. *See* Island BookViewer, *available at* http://www.island.com/BookViewer/index.htm (last visited Mar. 19, 2001).

78. Instinet's History, *available at* http://www.instinet.com/corp_info/background/history/shtml (last visited Mar. 19, 2001).

79. Order Execution Obligations, Exchange Act Release No. 37,619A, 62 S.E.C. Docket (CCH) 2083 (Sept. 6, 1996), *available at* 1996 WL 506154, at *4 (S.E.C.) [hereinafter Order Handling Release]; *see also infra* Part V.C.2 (describing Order Handling Rules).

partially to address perceived problems created by the rise of ECNs, they actually created an explosion in ECN activity by sanctioning the role of ECNs in order executions, subject only to the condition that they open their book of orders to the larger market beyond their subscribers.

III. SELF-REGULATION IN THE SECURITIES INDUSTRY

In regulating the securities industry, the SEC relies heavily on a well-entrenched self-regulatory system, much of which was in place before the agency was formed. The NYSE regulated its members from its inception, and this arrangement was allowed to continue after the passage of the Exchange Act, with SEC regulation overlaying, rather than replacing, NYSE self-regulation. Shortly after passage of the Exchange Act, the NASD was formed. The self-regulatory system developed during a time in which the NYSE enjoyed a quasi-monopoly and the NASD had no business other than self-regulation. As described in this section, these self-regulatory organizations, or "SROs," are not-for-profit organizations with their own rules and enforcement staffs. There has always been an inherent conflict in the self-regulatory system, as the members of a for-profit industry are called upon to rein in any propensity for illegal or unethical conduct that might be spawned by the profit motive. This conflict is more extreme today than it has been at any time in history because Nasdaq has evolved from a simple quotation system into a major stock market that aggressively competes with the NYSE.[80] Moreover, ECNs, new types of markets competing primarily with Nasdaq, are regulated not as exchanges but as broker-dealers, creating a situation in which the NASD operates a stock market and acts as the first-line regulator for its competitors.

A. *History*

Self-regulatory organizations predate the Commission by well over one hundred years. The stock exchanges, which were formed as early as 1790, exercised self-regulatory responsibilities over their members from their inception.[81] At the time of the Exchange Act's passage there were at least twenty-one stock exchanges, and debates surrounding the adoption of the Exchange Act included substantial discussion regarding the preservation of their self-regulatory authority.[82] The Exchange Act

80. *Infra* Part VII (describing the evolution of Nasdaq).

81. *See* Marianne K. Smythe, *Government Supervised Self-Regulation in the Securities Industry and the Antitrust Laws: Suggestions for an Accommodation*, 62 N.C. L. REV. 475, 480 (1984).

82. *Id.*

as originally adopted, without using the term "self-regulatory organization," gave the Commission oversight authority over exchanges, which retained direct authority over their members.[83]

The forerunner of the NASD, the Code Committee, was created in 1933 as part of the National Recovery Act.[84] After the Supreme Court declared the National Recovery Act unconstitutional, the industry decided to voluntarily continue the organization.[85] The Conference Committee worked with the SEC to develop legislation that would clarify its powers and responsibilities, resulting in the passage of the "Maloney Act" in 1938.[86] The NASD became registered as a national securities association under Section 15A of the Exchange Act on August 29, 1939.[87] The 1975 amendments to the Exchange Act introduced the term "self-regulatory organization" and reorganized the provisions of the Exchange Act concerning self-regulation.[88] Under the current system, several provisions of the Exchange Act and the regulations thereunder, such as those governing rulemaking, apply to all self-regulatory organizations, with no distinctions made between exchanges and registered securities associations.[89]

B. Structure and Oversight of Self-Regulatory Organizations

Both the NYSE and the NASD have a mutual form of ownership.[90] The NYSE and NASD are both non-profit organizations owned by their members. The NASD owns The Nasdaq-Amex Market Group, Inc.,

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83. *Id.* at 481-82.

84. Wallace H. Fulton, *The Origin of the NASD, 1933-1939/The OTC Market's Venture into Self-Regulation*, *available at* http://www.nasd.com/corpinfo/co_ove_histr.html (last visited Mar. 19, 2001).

85. *Id.* The new organization was known as the Investment Bankers Conference Committee, and later as the Investment Bankers Conference, Inc. *Id.* The Conference Committee had a governing body of twenty-one elected representatives from the organization's members, and divided the country into fourteen districts for administrative purposes. *Id.*

86. *Id.*

87. *Id.*

88. The reorganization was accomplished by amending certain provisions of Section 19 of the Exchange Act, which formerly applied only to national securities exchanges, so that they applied to all self-regulatory organizations, and transferring some of the provisions of Section 15A of the Exchange Act, which applies only to registered securities associations, to Section 19. S. REP. NO. 94-75 (1975), *reprinted in* 1975 U.S.C.C.A.N. (89 Stat. 97); Fed. Sec. L. Rep. (CCH) ¶¶ 25,501 (2000), 26,241 (1999), 26,251 (1987), 26,261 (1987), 26,281 (1988), 26,294 (1995). The registration provisions for national securities exchanges and registered securities organizations remain separate. Securities Exchange Act of 1934, 15 U.S.C. §§ 78f(a)–(b), 78o-3(a)–(b) (1994).

89. *See id.*

90. "Mutual ownership" is ownership by the members of an exchange, association, or other organization.

which operates the Nasdaq and Amex markets. As discussed in more detail below, however, the NASD has sold a significant share of Nasdaq to investors in a private placement of securities.[91] Unlike the NYSE and the other exchanges, Nasdaq's regulatory function is carried out by a subsidiary, NASD Regulation, Inc. ("NASDR"), which is separate from the Nasdaq market.[92]

Both the NASD and the NYSE have large staffs of full-time examiners, enforcement personnel, and executives to carry out their regulatory functions. The "self" in "self-regulation" is therefore only a reality insofar as members of the industry oversee these employees. The NASD is overseen by a Board of Governors, which can consist of up to thirty-five governors.[93] Seven of these governors come from within the organization.[94] In addition to the inside governors, the board has between sixteen and twenty-eight governors elected by the NASD's members.[95] The by-laws also require that a majority of the governors be "non-industry" governors, defined generally as individuals who are neither associated with nor have significant business relationships with NASD members, the NASD, or Nasdaq.[96]

The NYSE has a board of directors with twenty-four members, all of whom are elected by the exchange members, a Chairman of the Board and, if the positions are filled, the Executive Vice Chairman and

91. *Infra* Part X.D (describing the proposed demutualization of Nasdaq and NYSE).

92. NASD Regulation also regulates the NASD's broker-dealers on matters such as sales practices, financial responsibility, and other issues not directly related to Nasdaq trading. Plan of Allocation and Delegation, *supra* note 33, at 1102-03. NASD Regulation carries out its functions through fourteen district offices, each of which is overseen by a District Committee. *Id.* at 21; NASD Manual, *supra* note 33, Art. VIII of By-Laws of NASD, at 1319-20. NASD Regulation's board of directors appoints a National Adjudicatory Council, which reviews disciplinary proceedings and makes recommendations to the NASD's board of governors on rules governing the conduct of member firms and associate persons and other enforcement matters. NASD Manual, *supra* note 33, Art. V of NASD By-Laws, at 1310-12.

93. NASD Manual, *supra* note 33, Art. VII, Secs. 1, 4 of NASD By-Laws, at 1312, 1315.

94. These are: the Chief Executive Officer and Chief Operating Officer of the NASD, the Presidents of NASD Regulation and Nasdaq, the Chair of NASD Regulation's National Adjudicatory Council, the Chief Executive Officer of Amex and one "Floor Governor" chosen by Amex. *Id.* Art. VII, Sec. 4 of NASD By-Laws, at 1315. The National Adjudicatory Council reviews decisions in enforcement proceedings. *See infra* Part II.D (discussing the NASD's enforcement system).

95. NASD Manual, *supra* note 33, at 1315. The NASD's by-laws require that the Board include at least one representative of each of the following organizations: a mutual fund or affiliate, a company whose shares are listed on Nasdaq, and an NASD member with fewer than 150 registered representatives. *Id.*

96. *See id.*; *id.* Art. I of NASD By-Laws, at 1301-03. In 1999, the Board of Governors had thirty-three members. NASD Annual Report 29-31 (1999), *available at* http://www.nasd.com/corpinfo/co-ann.html (last visited Mar. 19, 2001).

President of the exchange.[97] Twelve of the elected directors are "industry" directors, who are associated with member firms, and twelve are "public" directors.[98]

C. Rule-Making

Rules of all self-regulatory organizations must be approved by the SEC, which generally publishes rule proposals for public comment before issuing a decision.[99] The Commission may only approve a rule change if it finds that the change is "consistent with the requirements of [the Exchange Act] and the rules and regulations thereunder applicable to [the self-regulatory organization] making the filing."[100]

Self-regulatory organizations are not required to submit rule proposals to members for comment, although they sometimes do.[101] NASD proposed rule changes are developed by NASD Regulation and must be adopted by the NASD Regulation board of directors.[102]

97. Art. IV, Sec. 2 of NYSE Constitution, N.Y.S.E. Guide, *supra* note 59, § 1152.

98. At least one of the public directors must be associated with an NYSE issuer that is not a financial institution, and one must be associated with a financial institution "that is a significant investor in equity securities." *Id.* Of the industry directors, five must be associated with NYSE members with "substantial direct contact with securities customers" and must live and work in the New York metropolitan area; one must be associated with an NYSE member with "substantial direct contact with securities customers" and live and work outside the New York metropolitan area; three must be NYSE specialists; one must be associated with a New York-area NYSE member with a regional operation which is not a specialist; and one must work on the floor of the exchange but not as a specialist. *Id.*

99. Securities Exchange Act of 1934, 15 U.S.C.A. § 78s(b) (West 1997 & Supp. 2000). The Commission has proposed to streamline the process under which rule changes are submitted to it for approval. Proposed Rule Changes of Self-Regulatory Organizations, Exchange Act Release No. 43,860 (Jan. 19, 2001), *available at* 2001 WL 62908 (S.E.C.).

100. *Id.* Rule changes in certain routine areas may be effective on filing with the Commission, subject to the right of the Commission, within sixty days of the filing, to abrogate the rule filing and to require its re-consideration under the usual procedures. 15 U.C.S. § 78s(b)(3).

101. *Compare* NASD NOTICE TO MEMBERS 99-79 (Sept. 1999), *available at* 1999 WL 33176579, at *1 (soliciting comments on and rule amendments relating to member communications with the public), *with* Notice of Filing of Proposed Rule Change by the National Association of Securities Dealers, Inc. and Amendments Nos. 1 and 2 thereto relating to the Establishment of the Nasdaq Order Display Facility and Modifications of the Nasdaq Trading Platform, Exchange Act Release No. 42,166, 71 S.E.C. Docket (CCH) 281 (Nov. 22, 1999), *available at* 1999 WL 1080624, at *17 (S.E.C.) (showing written comments not solicited on "SuperMontage" proposal). *See generally* Notice of Filing of Proposed Rule Change by the National Association of Securities Dealers, Inc. and Amendment Nos. 1 and 2 Thereto Relating to the Establishment of the Nasdaq Order Display Facility and Modifications of the Nasdaq Trading Platform, Exchange Act Release No. 42,166, 71 S.E.C. Docket (CCH) 281 (Nov. 22, 1999), *available at* 1999 WL 1080624 (S.E.C.) [hereinafter SuperMontage Proposal].

102. NASD NOTICE TO MEMBERS 99-79, *supra* note 101, at *1. The NASD's board of governors sometimes reviews rule changes. *Id.* NASD Regulation typically works with its committees and the National Adjudicatory Council in creating proposals for rule changes. *Id.*

Changes in the rules of the NYSE must be approved by its board of directors.[103] The NYSE does not follow any established procedure in developing rule changes, but instead consults with its members, works with committees within the securities industry, or creates its own committees, depending on the nature of the rule change.[104]

D. Enforcement

Self-regulatory organizations have a responsibility to enforce compliance not only with their own rules, but also with the federal securities laws.[105] Employees of the NASD Department of Enforcement in the NASD's district offices and members of the Department of Enforcement and Market Regulation at the NASD's headquarters conduct investigations into possible violations of NASD rules or the federal securities laws.[106] After approval by a Department of Enforcement attorney and the District Director, a "case authorization unit" within the Department of Enforcement authorizes disciplinary actions investigated by district offices.[107] If a proposed enforcement proceeding by a district office is "significant or complex" and "raises important regulatory or policy issues," the Office of Disciplinary Policy within the Division of Enforcement will also review the action.[108] The Department of Enforcement files complaints with an Office of Hearing Officers.[109] The National Adjudicatory Council reviews decisions of hearing officers, and the SEC reviews decisions of the National Adjudicatory Council.[110]

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103. Art. VIII, Sec. 1 of NYSE Constitution, N.Y.S.E. Guide, *supra* note 59, § 1351.

104. *See, e.g.*, Notice of Filing of Proposed Rule Change by New York Stock Exchange, Inc., Extending the Pilot Fee Structure Governing the Reimbursement of Member Organizations for Costs Incurred in the Transmission of Proxy and Other Shareholder Communication Materials and Amending the Components of Coordination Activities, Exchange Act Release No. 43,159 (Aug. 16, 2000), *available at* 2000 WL 1162239, at *7 (S.E.C.) (discussing how NYSE created Proxy Fee Working Committee to consult with exchange on rule change); Notice of Filing of Proposed Rule Change by the New York Stock Exchange, Inc., Relating to Amendments to Exchange Rule 123B, Exchange Act Release No. 42,572, 71 S.E.C. Docket (CCH) 2212 (Mar. 23, 2000), *available at* 2000 WL 320459, at *2 (S.E.C.) (NYSE "reviewed proposed rule change with members and organizations representing various constituencies."); NYSE NOTICE TO MEMBERS 94-47 (Sept. 21, 1994) (Amendments developed jointly by NYSE and committee of Securities Industry Association).

105. 15 U.S.C. §§ 78f(b)(1), 78o-3(b)(2).

106. NASD NOTICE TO MEMBERS 97-55, at *11-12 (Aug. 1997), *available at* 1997 WL 1909827.

107. *Id.* at *13.

108. *Id.* at *13-15.

109. *Id.* at *15.

110. *Id.*; 15 U.S.C. § 78s(d), (e), (f). Before August 1997, District Business Conduct Committees instituted disciplinary actions in each of the NASD's districts. *See, e.g.*, *In re*

The NYSE's Division of Enforcement, which is part of the exchange's Regulatory Group, conducts investigations into violations of NYSE rules and federal securities laws.[111] The Division of Enforcement typically consults with officials within the Regulatory Group in connection with recommendations for enforcement action, and then presents the recommendation to the head of the Regulatory Group for final approval.[112] Disciplinary proceedings are instituted by a "Charge Memorandum," the equivalent of a complaint, filed by the Division of Enforcement.[113] Litigated disciplinary proceedings are conducted before an Exchange Hearing Panel consisting of a Hearing Officer and two other members of the NYSE's Hearing Board.[114] The members of the Hearing Board are industry representatives and cannot also be members of the NYSE's board of directors.[115] Decisions of a Hearing Panel can be appealed to the full Hearing Board, and decisions of the Hearing Board can be appealed to the SEC.[116]

IV. THE NATIONAL MARKET SYSTEM

1975 produced the most dramatic changes in the regulation of trading in any single year since the adoption of the Exchange Act in 1934. The first major development during this year was the deregulation of commissions on securities trades. The second major development

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Application of Sundra Escott-Russell for Review of Disciplinary Action taken by National Association of Securities Dealers, Inc., Exchange Act Release No. 43,363, 73 S.E.C. Docket (CCH) 953 (Sept. 27, 2000), *available at* 2000 WL 1423640, at *2 (S.E.C.). The NASD adopted major revisions to its disciplinary procedures in August 1997, which were prompted in part by an SEC investigation of the Nasdaq market and the NASD's fulfillment of its regulatory responsibilities. Order Approving Proposed Rule Change and Amendment No. 1 to the Proposed Rule Change, Notice of Filing and Order Granting Accelerated Approval of Amendment No. 2 to the Proposed Rule Change, and Order Extending Temporary Approval of SR-NASD-96-20 and SR-NASD-96-29, Regarding Proposed Changes in the By-Laws and Restated Certificates of Incorporation of the NASD, NASD Regulation, Inc., The Nasdaq Stock Market, Inc. and the Plan of Allocation and Delegation of Functions by the NASD to Subsidiaries, Exchange Act Release No. 39,326, 65 S.E.C. Docket (CCH) 1957 (Nov. 14, 1997), *available at* 1997 WL 714065 (S.E.C.) [hereinafter NASD Restructuring Release]; *see also infra* Part VIII.A (addressing flaws in the Nasdaq system). The changes were designed in part to centralize the NASD's enforcement decision-making process and to eliminate the involvement of industry representatives, through their membership on District Business Conduct Committees, in the determination of whether to institute disciplinary proceedings. NASD Restructuring Release, *supra*.

111. David P. Doherty et al., *The Enforcement Role of the New York Stock Exchange*, 85 NW. U. L. REV. 637, 638 (1991).

112. *Id.* at 642.

113. *Id.* at 643.

114. *Id.* at 644.

115. *Id.*

116. *Id.* at 646-47.

consisted of major revisions to the Exchange Act for the purpose of developing a "national market system." Many of the Commission's regulations since 1975 have been explicitly designed to foster this development. Significant trading regulations are almost never adopted without a consideration of their compatibility with a national market system.

In contrast to the deregulation of commissions, which was fully implemented over a relatively short time period, the development of the national market system has not been completed over twenty-five years after the 1975 amendments to the Exchange Act. This section will first discuss the deregulation of commissions and the overriding principles governing the national market system, which were announced by Congress in adopting Section 11A of the Exchange Act. Next, it will discuss the progress that has been made to date in developing what are considered some essential features of a national market system: wide dissemination of quotation and transaction information; the elimination of off-board trading restrictions; the "third market," or trading of listed stocks in the OTC market; unlisted trading privileges, which allow exchanges to trade Nasdaq stocks or stocks listed on another exchange; and the InterMarket Trading System, which allows orders placed on one market to be executed on another.

A. 1975–The Revolution Begins

The first major regulatory development in 1975 was the deregulation of commissions on securities trades on May 1. The deregulation occurred initially through the Commission's passage of Rule 19b-3, which was then followed closely by Congressional action.[117] Regulators had never imposed fixed commission rates on the industry, but exchange rules required members to charge fixed commission rates for transactions executed on the exchanges.[118] Small investors received

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117. Adoption of Securities Exchange Act Rule 19b-3, Exchange Act Release No. 11,203, 6 S.E.C. Docket (CCH) 147 (Jan. 23, 1975), *available at* 1975 WL 18377 (S.E.C.) [hereinafter Deregulation Release]; Pub. L. No. 94-29, § 4, 89 Stat. 976 (codified as amended at 15 U.S.C. § 78f(e) (1994)). The amendment to Section 6 of the Exchange Act which prohibited fixed commission rates became effective on June 4, 1975. 15 U.S.C. § 78f(e). Commission Rule 19b-3 was rendered unnecessary by this amendment and was rescinded in 1988. Recission of Rules under the Securities Exchange Act of 1934, Exchange Act Release No. 26,180, 42 S.E.C. Docket (CCH) 4 (Oct. 14, 1988), *available at* 1988 WL 240181 (S.E.C.).

118. Deregulation Release, *supra* note 117, at *4. Though the exchanges made some modification to the fixed commission system over the years, these primarily allowed institutional investors to negotiate effective reductions in their commission rates through arrangements described as "byzantine." Fixed Commission Rates on Exchange Transactions, Exchange Act Release No. 11,093, 5 S.E.C. Docket (CCH) 439 (Nov. 8, 1974), *available at* 1974 WL 18573, at

little relief on commission rates until the passage of Rule 19b-3, which effectively outlawed exchange rules that required members to charge fixed commission rates.[119]

The second major regulatory development of 1975, closely related to the deregulation of commissions, was the development of rules furthering a congressional desire for a national market system.[120] Congress introduced the overriding principles that are to govern the national market system by adding Section 11A of the Exchange Act, which was included as a part of the 1975 amendments. The goals set forth in Section 11A are:

1. Economically efficient execution of transactions;
2. Fair competition among broker-dealers, among exchanges, and between exchanges and other markets;
3. Ready availability of quotation and transaction information to broker-dealers and investors;
4. The ability of broker-dealers to execute orders in the best market; and
5. An opportunity, consistent with the other goals, for investors to execute orders without the participation of a dealer.[121]

While the deregulation of commissions had far-reaching effects, it was fully implemented over a relatively short time period. The development of the national market system, however, has not been fully implemented over twenty-five years later, nor has anything close to a consensus been reached on the form it should take. Since the adoption of the 1975 amendments to the Exchange Act, the United States securities markets have moved slowly, and often reluctantly, towards a national market system.

B. Transaction and Quotation Information

One of the fundamental features of a national market system is transparency across markets, or the ability of investors to see the transactions occurring and quotes being disseminated in several different markets at the same time. To be most useful, the transaction and quotation information from these markets must be consolidated into a single stream of data that is transmitted to all market participants and

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*1-2, *3 & n.18 (S.E.C.).

119. Deregulation Release, *supra* note 117.

120. Securities Industry Study, Report of the Subcommittee on Commerce and Finance of the House Committee on Interstate and Foreign Commerce, H.R. REP. NO. 92-1519, 141-42 (1972) (defining future needs of the U.S. securities market).

121. National Market System for Securities, Securities Information Processors, 15 U.S.C. § 78k-1(a)(1)(C)(i)-(v) (1994).

investors. There are three primary facilities through which this consolidation and transmission occurs: the Consolidated Tape Association ("CTA")[122] and Consolidated Quotation System ("CQS"),[123] both of which apply to listed securities, and a single system operated by Nasdaq (the "Nasdaq System"), which applies to Nasdaq securities.[124] The CTA provides "last sale" information, or the price at which the last transaction in a listed stock occurred on any market, and

122. The CTA was created pursuant to Rule 17a-15 under the Exchange Act, which was adopted on November 8, 1972 and which essentially mandated that all transaction information for exchange-listed securities be disseminated pursuant to a transaction reporting plan agreed upon by the exchanges and the NASD and approved by the Commission. Collection and Dissemination of Transaction Reports and Last Sale Data, Exchange Act Release No. 16,589, 19 S.E.C. Docket (CCH) 616 (Feb. 19, 1980), *available at* 1980 WL 20773, at *1 n.9 (S.E.C.) [hereinafter Transaction Reporting Release]. The exchanges and the NASD submitted a transaction reporting plan in March 1973 which provided for the creation of a "Consolidated Tape Association" to administer the plan. *Id.* The Consolidated Tape Association is a committee made up of one representative from each of the national exchanges and the NASD. Regulation of Market Information Fees and Revenues, Exchange Act Release No. 42,208, 71 S.E.C. Docket (CCH) 496 (Dec. 9, 1999), *available at* 1999 WL 1125142, at *6 (S.E.C.) [hereinafter Market Data Release]. The Commission approved the plan, which is known as the "Consolidated Tape Association Plan," or "CTA Plan," on May 10, 1974. *Id.*; Notice of Commission Action Declaring Effective a Consolidated Tape Plan Filed Pursuant to Rule 17a-15 under the Securities Exchange Act of 1934, Exchange Act Release No. 10,787, 4 S.E.C. Docket (CCH) 271 (May 10, 1974), *available at* 1974 WL 17538 (S.E.C.). The "consolidated tape" is a collection of the trade information for listed stocks in all markets which is disseminated by a single processor designated under the plan. *Id.* The term "Consolidated Tape Association," abbreviated "CTA," while the name of the committee which administers the plan, is also used to refer to the system itself, as distinguished from the written plan. *See* Regulation of Exchanges and Alternative Trading Systems, Exchange Act Release No. 39,884, 67 S.E.C. Docket (CCH) 2339 (Apr. 17, 1998), *available at* 1998 WL 187835, at *34, *40, *55 (S.E.C.) [hereinafter Reg. ATS Proposing Release]. All national securities exchanges, along with the NASD, as the owner of Nasdaq, must participate in the CTA Plan. 17 C.F.R. § 240.11Aa3-1(b)(1) (2000); Transaction Reporting Release, *supra*, at *1 n.9. The NASD's participation in the CTA Plan is required by virtue of the trading of listed securities by Nasdaq market makers. *Infra* Part III.D (discussing trading of listed securities on Nasdaq). In 1980, Rule 17a-15 was redesignated as Rule 11Aa3-1. Transaction Reporting Release, *supra*, at *1.

123. Rule 11Ac1-1, which led to the creation of the Consolidated Quotation Plan, was passed on January 26, 1978. Dissemination of Quotations for Reported Securities, Exchange Act Release No. 14,415,14 S.E.C. Docket (CCH) 14 (Jan. 26, 1978), *available at* 1978 WL 20053, at *1 (S.E.C.). The Consolidated Quotation Plan is referred to most commonly as the "CQ Plan," but is also sometimes called the "CQS Plan." *See* Procedures and Requirements for National Market System Plans, Exchange Act Release No. 16,410, 18 S.E.C. Docket (CCH) 1306 (Dec. 7, 1979), *available at* 1979 WL 17563, at *3 (S.E.C.) [hereinafter National Market System Plans]; Market Data Release, *supra* note 122, at *6; Reg. ATS Proposing Release, *supra* note 122, at *34 n.210. The term "CQS" is used more broadly to describe the system for consolidating quotes, as opposed to the written plan. *See* Reg. ATS Proposing Release, *supra* note 122, at *34. The original CQ Plan was filed on July 25, 1978. Procedures and Requirements for National Market System Plans, *supra*, at *3. The plan was initially approved on July 28, 1978 on a temporary basis. *Id.* The CQ Plan is administered by an operating committee which, while technically separate than the CTA, is essentially the same. Market Data Release, *supra* note 122, at *6 n.17.

124. Market Data Release, *supra* note 122, at *6.

the CQS provides quotation information from all markets for listed stocks.[125] The Nasdaq System provides last sale and quotation information for Nasdaq stocks.[126]

In 1981, the Commission introduced the concept of National Market System ("NMS") securities by adopting Rule 11Aa2-1.[127] The purpose of this designation was to create an identifiable class of securities for inclusion in the national market system and to specify the criteria for their inclusion.[128] At the time, the only features of the national market system were the transaction and quotation reporting provisions of Rules 11Aa3-1 and 11Aac-1.[129] In addition to creating the NMS designation, the Commission adopted an amendment to Rule 11Aa3-1 that had the effect of mandating transaction and quotation reporting for all NMS securities.[130] The Commission decided that Rule 11Aa2-1 and the amendment to Rule 11Aa3-1 would only apply to Nasdaq securities because almost all exchange-listed securities were already part of the CTA and CQS systems.[131] Rule 11Aa2-1 set forth "Tier I" and "Tier II" criteria relating to the market price, volume of the security, and the issuer's financial condition which were similar to the exchange listing standards.[132] Nasdaq securities would be automatically designated as NMS securities if they satisfied "Tier I" criteria and admitted upon application of the issuer if they "substantially" met the Tier II criteria.[133]

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125. U.S. Equity Market Structure Study, Exchange Act Release No. 30,920, 51 S.E.C. Docket (CCH) 1524 (July 14, 1992), *available at* 1992 WL 172794, at *7 (S.E.C.). While most references to "CQS" in Commission releases are to the Consolidated Quotation System, the CQS abbreviation is also used to refer to the "Consolidated Quotations Service," which is a Nasdaq system. The Consolidated Quotation System is used by several markets, and is separate from the Consolidated Quotations Service, which is an internal Nasdaq service. Order Approving Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to the Obligations of CQS Market Makers to have Available Quotation Services that Provide Quotation Information for CQS Securities, Exchange Act Release No. 37,663, 62 S.E.C. Docket (CCH) 2178 (Sept. 10, 1996), *available at* 1996 WL 514973, at *1 n.2 (S.E.C.). The Consolidated Quotations Service formerly disseminated quotes from both the exchanges and Nasdaq market makers in connection with off-exchange trading of listed stocks, but now disseminates only the market makers' quotation information. *Id.*

126. Market Data Release, *supra* note 122, at *6.

127. Designation of National Market System Securities, Exchange Act Release No. 17,549, 22 S.E.C. Docket (CCH) 22 (Feb. 17, 1981), *available at* 1981 WL 37744, at *1 (S.E.C.).

128. *See id.*

129. *See id.* at *3.

130. *Id.* at *1.

131. *Id.* at *4. In addition, the Commission was swayed by the arguments of some commenters that applying an NMS designation to some exchange-listed securities would create an unwarranted distinction between these securities and those without the designation. *Id.*

132. *Id.* at *16-18.

133. *Id.* In complying with the rule, the NASD designated numerous securities as Nasdaq/NMS Securities, which created a distinct "National Market" segment of Nasdaq. Order

In 1987, the Commission amended Rule 11Aa2-1 to eliminate the Tier I and II criteria and, instead, provide that exchange-traded or OTC securities would be NMS securities if they were subject to a transaction reporting plan approved by the Commission.[134] This amendment allowed the NASD to determine which securities were NMS securities by deciding which securities would be included in its transaction reporting plan. However, the NASD's plan involved little substantive change because the NASD adopted standards that incorporated the Tier II criteria and added corporate governance requirements.[135] The real effect of the rule was to simplify the process of designating NMS securities by making the Commission an overseer rather than a direct participant in the process.[136]

The Nasdaq System serves as the equivalent of both the CTA and the CQS for Nasdaq securities and is also operated pursuant to Rules 11Ac1-1 and 11Aa3-1.[137] Transaction and quotation information for Nasdaq National Market System securities, which are eligible to trade on exchanges, is administered under the NASD's rules as well as a plan entered into between the NASD and three of the exchanges (the "Nasdaq Plan").[138] The Nasdaq System also includes transaction and quotation information for Nasdaq SmallCap securities and other specified OTC securities.[139] Information for these securities, which are not traded on exchanges, is disseminated pursuant to the NASD's rules only.[140]

Approving Proposed Designation Plan for National Market System Securities and Notice of Effectiveness of an Amendment to that Plan, Exchange Act Release No. 18,399, 24 S.E.C. Docket (CCH) 509 (Jan. 7, 1982), *available at* 1982 WL 31910 (S.E.C.); *History & Timeline*, *supra* note 31 (containing timeline showing Nasdaq's development from 1971 to 1998).

134. Designation of National Market System Securities, Exchange Act Release No. 24,635, 38 S.E.C. Docket (CCH) 952 (June 23, 1987), *available at* 1987 WL 113117, at *1 (S.E.C.) [hereinafter Designation of NMS Securities].

135. *See id.* at *1 n.5. Nasdaq SmallCap securities are not covered by the NASD's plan and are therefore not considered NMS securities. *See* Securities and Exchange Commission, Market 2000 Report: Study I, Introduction and Historical Background, *available at* 1994 SEC LEXIS 132, at *44 n.77 (Jan. 1994). Nasdaq does, however, disseminate market information for these securities. *Id.*

136. *See* Designation of NMS Securities, *supra* note 134, at *6 n.26.

137. Market Data Release, *supra* note 122, at *5.

138. *See id.* The name of the plan is the "Joint Self-Regulatory Plan Governing the Collection, Consolidation, and Dissemination of Quotation and Transaction Information for Exchange-Listed Nasdaq/National Market System Securities and for Nasdaq National Market System Securities Traded on an Unlisted Trading Privilege Basis." *Id.* This plan is part of a broader arrangement under which Nasdaq stocks are traded on exchanges pursuant to "unlisted trading privileges." *Infra* Part IV.E (describing unlisted trading privileges).

139. Market Data Release, *supra* note 122, at *6.

140. *Id.*

The actual dissemination of market information for listed stocks and similar securities occurs through three systems, or "networks," which are operated under the terms of the plans.[141] The CTA, CQS, and Nasdaq Plans all provide for the collection of fees for the dissemination of market data.[142] The plans have similar provisions governing the receipt and allocation of revenues.[143] Under the plans, market data is disseminated to vendors and subscribers.[144] Vendors enter into contracts with the networks under which they pay access and administrative fees for market data.[145] The subscribers, which are typically broker-dealers or institutional investors, generally receive market data from a vendor, which charges a subscriber fee that is passed on to the network.[146] Each plan provides for the pooling of the revenues for a particular network.[147] The direct expenses of the network are then paid out of these revenues, and the remaining revenues are typically distributed to the plan participants in proportion to their share of the transaction volume for the network.[148]

C. *"Off-Board" Trading Restrictions*

One of the impediments to the development of a national market system was the existence of off-board trading restrictions, which prohibit exchange members from trading exchange-listed securities away from the floor of an exchange. The most famous off-board trading restriction was New York Stock Exchange Rule 394. With some exceptions, NYSE Rule 394 prohibited NYSE members or affiliates from effecting transactions in any NYSE-listed stocks, either as principal or agent, in the OTC market.[149]

NYSE Rule 394 survived for decades despite criticism concerning its anti-competitive effect.[150] The SEC chipped away at the rule from 1975

141. *Id.* Network A includes information on common stocks, long-term warrants and preferred stock listed or allowed to be traded on the NYSE. *Id.* Network B includes information for common stock, long-term warrants, and preferred stock listed or allowed to be traded on Amex or the regional exchanges, but not also traded on the NYSE or Nasdaq. *Id.* The Nasdaq System has information for Nasdaq securities and some other OTC securities. *Id.* There is a fourth network for transaction and quotation information on options. *Id.* at *6-7.

142. *See id.* at *8.

143. *Id.*

144. *Id.*

145. Market Data Release, *supra* note 122, at *8.

146. *Id.*

147. *Id.*

148. *Id.*

149. Concept Release, *supra* note 45, at *4.

150. *See id.* at *5. As early as 1975, Congress found that off-board trading rules were

to 1980. In 1975, the SEC passed Rule 19c-1, which limited the scope of off-board trading restrictions, and it amended the rule in 1977.[151] As amended, Rule 19c-1 effectively provided that the rules of national securities exchanges must allow members to conduct over-the-counter transactions in exchange-listed securities as an agent, as long as the member is not acting as an agent for both sides of the trade.[152] To comply with Rule 19c-1 as originally adopted, the NYSE replaced Rule 394 with Rule 390, and it amended Rule 390 in 1978 in accordance with the amendment to Rule 19c-1.[153] Rule 19c-3, which was adopted in 1980, limited the reach of Rule 390 to stocks listed on the NYSE before April 26, 1979.[154] After the passage of Rule 19c-3, Rule 390 continued to prohibit exchange members from engaging in off-board transactions in stocks that were listed on the NYSE as of April 26, 1979, either as a principal or as an agent for both sides of the transaction.

In February 2000, after increasing SEC pressure to eliminate the rule altogether, the NYSE reluctantly sought SEC approval for the rescission of Rule 390.[155] The SEC received twelve comment letters on the

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"unnecessary regulatory constraints." S. REP. NO. 94-75, at 20 (1975), *reprinted in* 1975 U.S.C.C.A.N. 179, 198.

151. Adoption of Rule 19c-1 under the Securities Exchange Act of 1934 Governing Off-Board Trading by Members of National Securities Exchanges, Exchange Act Release No. 11,942, 8 S.E.C. Docket (CCH) (Dec. 19, 1975), *available at* 1975 WL 35469, at *1 (S.E.C.) [hereinafter Rule 19c-1 Adopting Release]; Off-Board Agency Trading Restrictions, Exchange Act Release No. 14,325, 13 S.E.C. Docket (CCH) 1289 (Dec. 30, 1977), *available at* 1977 WL 18372, at *1 (S.E.C.) [hereinafter Rule 19c-1 Amending Release].

152. Governing Certain Off-Board Agency Transactions by Members of National Securities Exchanges, 17 C.F.R. § 240.19c-1 (2000); Rule 19c-1 Amending Release, *supra* note 151. Rule 19c-1 states that:

> The rules of each national securities exchange shall provide as follows:
>
> No rule, stated policy, or practice of this exchange shall prohibit or condition, or be construed to prohibit or condition or otherwise limit, directly or indirectly, the ability of any member acting as agent to effect any transaction otherwise than on this exchange with another person (except when such member also is acting as agent for such other person in such transaction), in any equity security listed on this exchange or to which unlisted trading privileges on this exchange have been extended.

17 C.F.R. § 240.19c-1.

153. Under Rule 19c-1 as originally adopted, the exchanges were required to allow members to transact off-board transactions only with "third market maker[s]" or nonmember "block positioner[s]." Rule 19c-1 Adopting Release, *supra* note 151, at *1. Block positioners act as principals for the purpose of allowing customers to buy or sell large blocks of stock at as favorable a price as possible. *See* N.Y.S.E. Guide, *supra* note 59, Rule 97.10, ¶ 2097.10. The 1978 amendment to the rule broadened the reach of the rule to eliminate prohibitions on all off-board agency transactions except those in which the exchange member acted as agent for both sides of the trade. Rule 19c-1 Amending Release, *supra* note 151, at *2.

154. Governing Off-Board Trading by Members of National Securities Exchanges, 17 C.F.R. § 240.19c-3 (2000); Concept Release, *supra* note 45, at *4.

155. Concept Release, *supra* note 45, at *4-5.

rescission of Rule 390, none of which suggested that the rule be retained.[156] The Commission approved the rescission of the rule on May 5, 2000.[157] On June 1, 2000, all remaining off-board trading restrictions were rescinded.[158]

D. The Third Market

A central feature of a national market system is competition between markets.[159] Some competition between markets is provided by the "third market," which is the trading of listed stocks in the OTC market.[160] Third market trading existed long before off-board trading restrictions were relaxed because firms that were not exchange members and, therefore, not subject to exchange rules, were free to trade listed securities away from the exchanges. However, the third market was historically limited because users needed to be able to quickly compare third market prices with prices on the floor of the exchanges to ensure that their orders were executed at the market price.[161] As a result, access was limited almost exclusively to institutional investors, who were the only investors with this communication capability.[162] The loosening of the fixed commission rate structure and the ultimate deregulation of commissions in 1975 actually caused third market trading to decline because institutional investors, who had used the third market to avoid the NYSE's fixed commission rates, had less reason to trade away from the exchanges.[163] The adoption of Rule 19c-3 in 1980 did not, by itself, appreciably increase third market trading.[164] By the late 1980s, however, as improved linkages increased the transparency of markets and high-speed communications allowed broker-dealers to

156. Order Approving Proposed Rule Change to Rescind Exchange Rule 390, Exchange Act Release No. 42,758, 72 S.E.C. Docket (CCH) 889 (May 5, 2000), *available at* 2000 WL 649013, at *2 (S.E.C.).

157. *Id.* at *1.

158. *See* Concept Release, *supra* note 45, at *2 n.6; Order Approving Proposed Rule Change to Rescinded Rules 5 and 6, the Exchange's Off-Board Trading Rules, and to Make Conforming Changes to Rules 25, 317, 900 and 959, Exchange Act Release No. 42,888, 72 S.E.C. Docket (CCH) 1352 (June 1, 2000), *available at* 2000 WL 719782.

159. *See supra* Part IV.A (describing congressionally-mandated goals for national market system).

160. *See* Securities and Exchange Commission, Market 2000 Report: Study II, Structure of the U.S. Equity Markets, *available at* 1994 SEC LEXIS 133, at *24 (Jan. 1994) [hereinafter Market 2000 Study II].

161. Hans R. Stoll, *The Causes and Consequences of the Rise in Third Market and Regional Trading*, 19 IOWA J. CORP. L. 509, 510 (1994).

162. *Id.*

163. *Id.*; Market 2000 Study II, *supra* note 160, at *34-35.

164. Stoll, *supra* note 161, at 513.

quickly compare prices between markets, third market volume began to increase.[165]

E. Unlisted Trading Privileges

Unlisted Trading Privileges ("UTPs") allow exchanges to trade securities that are not listed on the exchange, such as Nasdaq stocks or stocks listed on another exchange. The Commission has had the authority to grant UTPs since 1934.[166] Once it received this authority, the Commission freely granted UTPs, and exchanges frequently traded stocks that were listed on another exchange.[167] In fact, most of the stocks traded on the regional exchanges are listed on the NYSE or Amex.[168] While the Commission had authority to grant UTPs in OTC stocks as early as the 1936 amendments to the Exchange Act, this authority was limited to stocks subject to disclosure requirements that were "substantially equivalent" to those for listed companies.[169] However, OTC stocks were not subject to periodic reporting requirements until 1964, and as a result from 1936 to 1964 the Commission rarely granted UTPs for OTC stocks.[170] When the Exchange Act was amended in 1964 to extend the periodic reporting requirements to OTC stocks, Congress removed the Commission's power to grant UTPs for OTC stocks.[171] This authority was reinstated with the 1975 amendments to the Exchange Act.[172]

Even after receiving authority to grant UTPs to OTC stocks in 1975, the Commission did not exercise this authority for several years.[173] Finally, in 1984, the Commission solicited comment on a proposal to extend UTPs in OTC stocks to the exchanges.[174] On September 16,

165. *Id.*

166. Unlisted Trading Privileges in Over-the-Counter Securities, Exchange Act Release No. 21,498, 31 S.E.C. Docket (CCH) 923 (Nov. 16, 1984), *available at* 1984 WL 52518, *2 (S.E.C.) [hereinafter UTP/OTC Release]. Section 12(f) of the Exchange Act, which governs UTPs, speaks of UTPs being "extended" by exchanges "to" certain securities. *See* Securities Exchange Act of 1934, 15 U.S.C.A. §§ 78(f), 12(f) (West 1997 & Supp. 2000). However, because the SEC in most cases must approve UTPs, Commission releases usually speak of the Commission's "granting" of UTPs to exchanges "in" certain securities, and this is the terminology which will be used here. *See* UTP/OTC Release, *supra*, at *1.

167. UTP/OTC Release, *supra* note 166, at *1.

168. *Id.*

169. *Id.* at *2.

170. *Id.*

171. *Id.*

172. *Id.* at *1.

173. *Id.* at *3.

174. *Id.* at *1.

1985, the Commission announced a "policy" to extend UTPs to national securities exchanges in certain OTC securities.[175] The Commission, however, expressly conditioned the granting of UTPs on the approval of a plan submitted by the exchanges and the NASD to consolidate exchange and Nasdaq quotations for those OTC securities for which UTPs were granted.[176] Finally, in June 1990, a joint industry plan was agreed upon and approved by the Commission.[177] Under the joint industry plan between the exchanges and the NASD, Nasdaq was appointed the "Plan Processor."[178] The plan provided that the exchanges would send quotation information and transaction reports to Nasdaq for the securities for which UTPs were granted.[179] The plan did not have an automatic execution feature but provided that each exchange and Nasdaq market maker have access to the other's trading post or desk by telephone.[180]

F. Intermarket Trading System

The first facility that allowed orders to be executed between markets was the InterMarket Trading System ("ITS").[181] As originally formed, ITS was designed to allow the participant exchanges to display quotations for the same securities on the floors of different exchanges, and allowed members of the various exchanges to quickly route orders

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175. Unlisted Trading Privileges in Over-the-Counter Securities, Exchange Act Release No. 22,412, 33 S.E.C. Docket (CCH) 1435 (Sept. 16, 1985), *available at* 1985 WL 60222, at *1 (S.E.C.).

176. *Id.* The Commission stated that it expected the "plan to be submitted by December 1, 1985 and implemented by January 1, 1986." *Id.* The Commission envisioned a pilot program in which UTPs were initially granted for up to twenty-five securities. *Id.* However, it was not until April 1987 that UTPs were granted, and even then the privileges were granted to only one exchange, the Midwest Stock Exchange, because the exchanges and the NASD could not agree on a joint industry plan. Joint Industry Plan: Order Approving Proposed Reporting Plan for Nasdaq/NMS Securities Traded on an Exchange on an Unlisted or Listed Basis, Submitted by the National Association of Securities Dealers, Inc., and the American, Boston, Midwest and Philadelphia Stock Exchanges, Exchange Act Release No. 28,146, 46 S.E.C. Docket (CCH) 768 (June 26, 1990), *available at* 1990 WL 312325, at *2 (S.E.C.) [hereinafter Joint Industry Plan Release].

177. Joint Industry Plan Release, *supra* note 176, at *2.

178. *Id.* at *3.

179. *Id.*

180. *Id.* at *4.

181. The ITS originated as a pilot program operated by Amex, the Boston Stock Exchange, the NYSE, the Pacific Stock Exchange, and the Philadelphia Stock Exchange. *In re* American Stock Exchange, Inc., Boston Stock Exchange, Inc., New York Stock Exchange, Inc., Pacific Stock Exchange, Inc., Philadelphia Stock Exchange, Inc., Exchange Act Release No. 14,661, 14 S.E.C. Docket (CCH) 806 (Apr. 14, 1978), *available at* 1978 WL 20645, at *1 (S.E.C.). ITS was initially operated under a joint plan filed by the participant exchanges with the Commission. *Id.*

to other exchanges for execution.[182] Early in ITS' history, the Commission encouraged the exchanges participating in ITS and the NASD to develop a linkage between Nasdaq and ITS.[183] The exchanges and the NASD were not quick to develop this linkage, and in February 1981, the Commission proposed to issue an order requiring its implementation.[184] The Commission issued this order on April 21, 1981, and in the release announcing the issuance of the order, noted its annoyance with the failure of the exchanges and the NASD to develop the linkage voluntarily.[185] The linkage between Nasdaq and ITS, which began on May 17, 1982, introduced a new feature to ITS because ITS was linked with Nasdaq through Nasdaq's Computer Assisted Execution System ("CAES"), which provided for automatic execution of orders.[186] The ITS linkage between the exchanges did not provide for automatic execution of orders.[187] The linkage between Nasdaq and ITS was initially limited to "Rule 19c-3" securities,[188] which were securities which could not be subject to off-board trading restrictions of any type. The linkage between ITS and Nasdaq was expanded to include all listed securities on December 9, 1999.[189]

V. ORDER EXECUTION

Any debate on market structure ultimately centers on whether customer orders are receiving best execution. This section summarizes broker-dealers' obligations in connection with execution of customer

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182. *Id.* From the start, the Commission viewed ITS as a potential component of a national market system. *Id.* at *2. At its inception, however, ITS did not include Nasdaq market makers and did not allow for the automatic execution of orders. *See id.*

183. Intermarket Trading System, Exchange Act Release No. 17,516, 21 S.E.C. Docket (CCH) 1519 (Feb. 6, 1981), *available at* 1981 WL 36427, at *3 (S.E.C.).

184. *Id.* at *1.

185. *See id.* at *5-6; Notice and Order Requiring Implementation of an Automated Interface, Exchange Act Release No. 17,744, 22 S.E.C. Docket (CCH) 845 (Apr. 21, 1981), *available at* 1981 WL 38002, at *6 n.44 [hereinafter Implementation of Automated Interface].

186. *See* Order Approving Intermarket Trading System, Exchange Act Release No. 19,456, 27 S.E.C. Docket (CCH) 72 (Jan. 27, 1983), *available at* 1983 WL 35490, at *3 (S.E.C.); *see also infra* Part VII.A.1 (describing CAES system).

187. Implementation of Automated Interface, *supra* note 185, at*6 n.44.

188. Proposed Rulemaking Pursuant to Section 11A of the Securities Exchange Act of 1934 to Amend the Intermarket Trading System ("ITS") Plan to Expand the ITS/Computer Assisted Execution System Linkage to All Listed Securities and to Eliminate the Unanimous Vote Provision, Exchange Act Release No. 40,260 (July 24, 1998), *available at* 1998 WL 413812, at *4 (S.E.C.).

189. Adoption of Amendments to the Intermarket Trading System Plan to Expand the ITS/Computer Assisted Execution System Linkage to All Listed Securities, Exchange Act Release No. 42,212, 71 S.E.C. Docket (CCH) 547 (Dec. 9, 1999), *available at* 1999 WL 1128797 (S.E.C.).

orders, beginning with the general duty of best execution and continuing with a discussion of additional requirements which have been imposed by NASD and SEC decisions and rules.

A. Best Execution

A broker-dealer that receives a customer order has a duty of best execution. This duty springs from both common-law agency principles and from the "shingle theory," under which a broker-dealer assumes a special duty to its customers when it "hangs out its shingle" and offers to deal with the public.[190] A violation of the duty of best execution is considered a violation of the anti-fraud provisions of the federal securities laws.[191] While investors frequently associate best execution with obtaining the highest price for a sell order or the lowest price for a buy order, the duty encompasses other aspects of order handling, such as speed and certainty of execution, as well.[192]

B. Trading Ahead of Limit Orders

Broker-dealers act as agents when a customer transmits an order to them for execution. They may also act as principals trading for their own account, either because they are making a market in a Nasdaq security or simply because they are seeking to profit from proprietary

190. *See, e.g.*, Charles Hughes & Co. v. SEC, 139 F.2d 434, 437 (2d Cir. 1943); Execution Disclosure Proposing Release, *supra* note 16, at *5. The duty under the shingle theory is similar to, but not identical to, a fiduciary duty. *See* Roberta S. Karmel, *Is the Shingle Theory Dead?*, 52 WASH. & LEE L. REV. 1271, 1271-73 (1995); David C. Sienko, *The Aftermath of Derivatives Losses: Can Sophisticated Investors Invoke the Suitability Doctrine Against Dealers Under Current Law?*, 8 DEPAUL BUS. L.J. 105, 121-22 (1995). Unlike investment advisers, who are always considered fiduciaries with respect to their clients, a broker-dealer may be found to have a fiduciary relationship with some customers but not others. *See* Karmel, *supra*, at 1273; Sienko, *supra*, at 121-22; THOMAS P. LEMKE & GERALD T. LINS, REGULATION OF INVESTMENT ADVISORS § 2.02[5] (2000 ed.); *see also In re* E.F. Hutton and Company Inc., Exchange Act Release No. 25,887, 49 S.E.C. 829 (July 6, 1988), *available at* 1988 WL 239506, at *11-14 (dissent of Commissioner Fleischman) (noting that the Commission has historically found that whether a broker-dealer has a fiduciary duty to a customer depends on the facts and circumstances surrounding the broker-dealer's relationship with that customer) [hereinafter E.F. Hutton Release]. While the viability of the shingle theory has been questioned, the SEC continues to espouse it, and it has not been repudiated by the courts. *See* Karmel, *supra*, at 1279; *In re* BT Alex. Brown Inc., Exchange Act Release No. 42,145, 71 S.E.C. Docket (CCH) 114 (Nov. 17, 1999), *available at* 1999 WL 1038063, at *8 (S.E.C.). The duty under the shingle theory is a higher duty than would exist between parties to the average commercial transaction. *See* Karmel, *supra* at 1273-74. A violation of a broker-dealer's duty under the shingle theory is considered a violation of the anti-fraud provisions of the federal securities laws. *See* Disclosure of Order Routing Release, *supra*, at *5.

191. Execution Disclosure Proposing Release, *supra* note 16, at *5; *see also Charles Hughes & Co.*, 139 F.2d at 436.

192. Execution Disclosure Proposing Release, *supra* note 16, at *9.

trades. A practice that may occur as a result of broker-dealers acting as both agents and principals is "trading ahead" of customer limit orders. A NASD disciplinary action against E.F. Hutton & Company, Inc. in 1988, in which the NASD interpreted its rules to prohibit trading ahead of customer limit orders, was the first step in limiting this practice.[193]

Though in the E.F. Hutton proceeding the NASD argued successfully that the interpretation of its rules of fair practice prohibiting trading ahead of customer limit orders did not require compliance with the rulemaking procedures, in May 1989 it nonetheless proposed a new rule interpretation to clarify its position on the issue.[194] This interpretation

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193. E.F. Hutton Release, *supra* note 190, at *1. The action arose out of a limit order placed by William Manning, a customer of E.F. Hutton, in January 1984. *Id.* Manning placed a limit order to sell 5,000 shares of Genex Corporation at 17½ at a time when the inside quotation for Genex was 17 bid, 17⅛ offer. *Id.* E.F. Hutton sold 4,755 shares of Genex from its own inventory at 17¼ and 17½ and, because the price of Genex subsequently declined, never filled Manning's order. *Id.* Manning instituted a disciplinary hearing against Hutton. At the time of the Manning case the NASD's rules allowed a customer of a NASD firm to bring a disciplinary action against the firm. *See id.* at *1 n.1. The rules were later amended to eliminate this procedure. *In re* Russell A. Simpson for Review of Action taken by the National Association of Securities Dealers, Inc., Exchange Act Release No. 40,690, 68 S.E.C. Docket (CCH) 1752 (Nov. 19, 1998), *available at* 1998 WL 801399, at *1 (S.E.C.).

After a hearing, the NASD found that Hutton violated Article III, Section 1 of the NASD's Rules of Fair Practice, which required NASD members to "observe high standards of commercial honor and just and equitable principles of trade." E.F. Hutton Release, *supra* note 190, at *1; Article III, Section 1 of the Rules of Fair Practice has since been redesignated as Rule 2110 of the NASD's Conduct Rules. *See* NASD Manual, *supra* note 33, Rule 2110, at 4111. The only sanction imposed against Hutton by the NASD was a letter of caution. E.F. Hutton Release, *supra* note 190, at *1.

Hutton appealed the NASD's decision to the SEC, arguing that it had no obligation to execute Manning's limit order. *Id.* at *1-2. The Commission found, however, that Hutton assumed a fiduciary obligation to Manning by agreeing to act as his agent with regard to the limit order, and therefore had an obligation not to give its own trade priority over Manning's order. *Id.* at *2-3. The Commission also found that Hutton could have avoided this obligation by disclosing to Manning that it intended to give its own proprietary position priority over his orders. *Id.* at *3. However, no such disclosure had been made. *Id.* Hutton, backed by the Securities Industry Association, which was allowed to express its views on appeal, argued that the NASD was adopting a new interpretation of its rules, which could only be accomplished by rulemaking. *Id.* at *4. The Commission, in sustaining the NASD decision, rejected this argument on the grounds that the interpretation at issue was supported by "long-standing principles and prior decisions of the courts" and the Commission. *Id.*

194. Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to Members Handling of Customer Limit Orders, Exchange Act Release No. 26,824, 43 S.E.C. Docket (CCH) 1382 (May 15, 1989), *available at* 1989 WL 257217, at *1 (S.E.C.) [hereinafter May 1989 Proposal]. While the NASD has the authority to interpret its rules, subject to SEC review, it has codified a large number of rule interpretations as "Interpretative Material," designated with a "IM" followed by a number. The Interpretative Material is generally considered part of the rules, and when the NASD issues new Interpretative Material it seeks Commission approval as it would for a change to the rules themselves. *See id.* at *2; *see also* Notice of Filing of Proposed Rule Change by National Association of Securities Dealers, Inc.

would not have prohibited trading ahead of limit orders. Instead, under the interpretation, an NASD member would not be deemed to have violated the NASD rules of fair practice if it provided a statement to customers describing the circumstances in which the firm accepted limit orders and the policies and procedures followed in handling those orders.[195] This proposal, however, never became final. The NASD continued to study the issue, and in July 1993 the NASD decided that trading ahead of customer limit orders should not be allowed even if disclosed to customers.[196] Accordingly, the NASD withdrew the proposed rule interpretation and filed a new proposed interpretation under which market makers would be prohibited from trading ahead of customer limit orders of their own customers.[197]

The interpretation proposed by the NASD in July 1993 contained a "Terms and Conditions" exception under which a broker-dealer could negotiate the terms and conditions under which limit orders placed by institutional accounts for 10,000 shares or more and valued at least $100,000 would be executed.[198] In a release known as "Manning I," the SEC approved the proposed interpretation in June 1994.[199] In the adopting release, however, the Commission stated that it believed that the ban on trading ahead of limit orders should apply not only to orders of a broker-dealer's own customers, but also to orders of customers of other firms that are sent to a broker-dealer for handling.[200]

After "Manning I," the NASD appointed a task force to further study the practice of trading ahead of limit orders.[201] The task force

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Relating to the Definition of "Public Offering" for Purposes of Nasdaq's Shareholder Approval Rules, Exchange Act Release No. 43,420, 73 S.E.C. Docket (CCH) 1192 (Oct. 6, 2000), *available at* 2000 WL 1482926, at *3 (S.E.C.).

195. May 1989 Proposal, *supra* note 194, at *1.

196. Order Approving Proposed Rule Change by the National Association of Securities Dealers, Relating to Handling of Customer Limit Orders, Exchange Act Release No. 34,279, 57 S.E.C. Docket (CCH) 50 (June 29, 1994), *available at* 1994 WL 317387, at *1-2 (S.E.C.) [hereinafter Handling of Customer Limit Orders].

197. *Id.* at *2.

198. *Id.* at *4; *see also* Notice of Filing of Amendment No. 1 to Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to Limit Order Protection for Member-to-Member Limit Order Handling on Nasdaq, Exchange Act Release No. 35,391, 58 S.E.C. Docket (CCH) 2167 (Feb. 16, 1995), *available at* 1995 WL 71417, at *1 (S.E.C.); NASD Manual, *supra* note 33, at 4120. "Institutional Accounts" are defined in Rule 3110(c)(4) of the NASD's Rules of Conduct, which was formerly designated as Article III, Section 21(c)(4) of its Rules of Practice, to include banks, savings and loans, insurance companies, registered investment companies, registered investment advisers, and any person or institution with total assets of $50 million. *Id.* at 4891-92.

199. Handling of Customer Limit Orders, *supra* note 196, at *1.

200. *Id.* at *4.

201. Order Approving Proposed Rule Change by National Association of Securities Dealers,

recommended that the ban on trading ahead of limit orders of customers of other broker-dealers apply only if the trade occurred at a price better than the limit order price.[202] The NASD proposed for member comment an interpretation of its Rules of Fair Practice, under which a market maker would not be allowed to trade ahead of a customer limit order at a price equal to or better than the limit order price if the order was for 1,000 shares or less, and at a price better than the limit order if the order was for more than 1,000 shares.[203]

Not satisfied with this compromise, the SEC proposed a rule of its own which would prohibit broker-dealers from trading ahead of orders of customers of other firms regardless of the size of the order.[204] The NASD sensed the futility of seeking approval of its proposal, and the rule change actually filed by the NASD, in November 1994, proposed to limit the trading ahead of limit orders placed by customers of another broker-dealer, without differing obligations based on the size of the order.[205]

The NASD's November 1994 filing also proposed to amend the interpretation of the Rules of Fair Practice to limit the "Terms and Conditions" exception to limit orders from institutional accounts, whether from the broker-dealer's own customers or customers of another firm, regardless of order size, and limit orders from non-institutional accounts if the order is for 10,000 or more shares and has a value of at least $100,000.[206] The Commission approved the proposed changes in May 1995, in a release known as "Manning II."[207] In approving the change, the SEC noted that market makers are not required to accept limit orders and are still permitted under NASD rules to charge commissions for handling limit orders, as long as the commission charges are fully disclosed to customers.[208]

Inc. Relating to Limit Order Protection on Nasdaq, Exchange Act Release No. 35,751, 59 S.E.C. Docket (CCH) 867 (May 22, 1995), *available at* 1995 WL 325939, at *2 (S.E.C.).

202. *Id.*

203. *Id.* For example, under this proposal, if a customer placed a buy order for 500 shares with a limit price of 20, the broker-dealer could not purchase shares for its own account at a price of 20 or lower without executing the customer's order. If the customer placed an order for 1500 shares at the same price, the broker-dealer could purchase the stock for its own account at 20 without executing the customer's order, but not at a lower price.

204. *Id.*

205. *Id.* at *3.

206. *Id.*

207. *See id.* at *12.

208. *Id.* at *10-12.

C. *Firm Quotes and Order Handling*

Since 1975, the Commission has made several revisions to its regulations designed to improve order execution. Two of the major regulatory revisions are discussed in this subsection. The first, the adoption of the "Firm Quote Rule," was designed to allow investors to be able to rely on quotations disseminated by market participants. The second, the adoption of the Order Handling Rules, was intended to ensure that all investors had access to the best national quotations for a security.

1. The Firm Quote Rule

Before 1978, quotes disseminated on Nasdaq did not include "size" or the number of shares to which the quote applied. In addition, quotes disseminated by market makers on Nasdaq and by specialists on exchanges were not required to be "firm," i.e., to obligate the market maker or specialist to execute a transaction at the quoted price. In 1978, the Commission remedied these perceived deficiencies by adopting Rule 11Ac1-1, the "Firm Quote Rule," which requires exchanges and registered securities associations to establish procedures for collecting quotations, including size, from broker-dealers and for making the quotes available to quotation vendors.[209] The rule also requires broker-dealers who maintain quotes for a security to promptly disseminate the quotes to the exchange or to Nasdaq and to honor the quotes by executing transactions at the quoted prices and sizes.[210] The rule has several minor exceptions that are generally designed to protect broker-dealers in the process of revising quotes and to prevent dual liability.[211]

As originally adopted, Rule 11Ac1-1 required, for all securities, any broker-dealer disseminating quotations to maintain such quotations continuously during the trading day.[212] However, the Commission found that this requirement imposed burdens on broker-dealers that

209. Dissemination of Quotations for Reported Securities, Exchange Act Release No. 14,415, 14 S.E.C. Docket (CCH) 14 (Jan. 26, 1978), *available at* 1978 WL 20053, at *17 (S.E.C.).

210. *Id.* at *18.

211. Rule 11Ac1-1 contains an exception to the firm quote requirement for situations in which a broker-dealer communicates a revised quote before being presented with an order for execution against the original quote. *Id.* at *6. In addition, broker-dealers are excepted from the firm quote obligation with regard to any orders which are in the process of being executed when a second order is received, but only to the extent the order in process is executed against the full size of the quote. *Id.* For example, if a broker-dealer is quoting a bid price of $60 with a size of 500, and is in the process of executing an order to purchase 200 shares, it still must fill a second order of 300 shares unless it revises its quote before the second order is received.

212. *Id.* at *6-9.

exceeded the benefits of the rule.[213] Accordingly, the Commission eliminated these "mandatory quote" provisions for some securities. It maintained them for the principal market for a security and for "Rule 19c-3 securities," i.e., securities that were not subject to exchange "off-board trading restrictions" prohibiting trading of exchange-listed securities away from the floor of an exchange.[214] Rule 19c-3 securities, therefore, were exchange-listed securities which could be traded away from the floor of an exchange.[215]

2. Order Handling Rules

In September 1996, the Commission made major revisions to its rules governing order display and execution by adopting the "Order Handling Rules."[216] The Order Handling Rules were designed to improve the transparency of markets, but also were prompted in large part by concerns that the development of ECNs would lead to market "fragmentation," that is, the dispersal of order executions among too many different market centers.[217] The Order Handling Rules actually included, in addition to the adoption of a new rule, an amendment to the Firm Quote Rule.[218] The perceived barrier to market transparency addressed by the rules was the failure of market makers to routinely display customer limit orders in their quotations.[219] With the Order Handling Release, the SEC adopted Rule 11Ac1-4 (the "Display Rule"), which requires market makers and specialists to display customer limit orders, including their full size, when the orders are placed at a price better than the market maker's or specialist's public quote.[220]

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213. Amendment of Quotation Dissemination Rule, Exchange Act Release No. 18,482, 24 S.E.C. Docket (CCH) 876 (Feb. 11, 1982), *available at* 1982 WL 35870, at *5 (S.E.C.).

214. *Id.*; 17 C.F.R. § 240.19c-3 (2001). Rule 19c-3 did not apply to securities that were listed on an exchange before April 26, 1979. *Supra* Part IV.C (discussing restrictions on "off-board" trading).

215. These securities, because they satisfy exchange listing requirements, tend to be larger companies in which the trading is more active than is trading in securities traded exclusively over-the-counter.

216. *See* Order Handling Release, *supra* note 79, at *2.

217. *Id.* at *5.

218. *Id.* at *2.

219. While the Manning releases prohibited broker-dealers from trading ahead of customer limit orders, they did not require these orders to be displayed. *Supra* Part V.B. (discussing prohibitions on trading ahead of customer limit orders). As a result, a customer who placed an order with a broker-dealer could still, on some markets, see his or her order remain unexecuted while an order was executed at an inferior price on the same market. *See id.*

220. Order Handling Release, *supra* note 79, at *2. The Display Rule applies only to "covered securities," which are Nasdaq or exchange-listed securities. 17 C.F.R. § 240.11Ac1-4 (2001). The Commission believed that the amendment would improve the public markets by:

Specialists maintain only a single bid and single offer quotation.[221] Similarly, the current Nasdaq system only allows market makers to enter a single bid or offer quotation into the system at any given point in time.[222] Accordingly, as a practical matter, market makers or specialists comply with the Display Rule by changing their own quote.[223] Since implementation of the Order Handling Rules, quotations of market makers and specialists may reflect the participant's own trading interest, limit orders placed with the participant, or both.[224] Under the Display Rule, a broker-dealer that does not want to amend its quote upon receipt of a customer limit order has two basic alternatives. One is to execute the order.[225] The other alternative is to send the order to Nasdaq, an exchange, an ECN, or a market maker that complies with the Display Rule.[226]

The fragmentation issue addressed in the Order Handling Rules gave rise to the ECN's creation of a number of "hidden markets," where broker-dealers could quote prices different from those quoted to retail customers.[227] With the Order Handling Release, the Commission adopted two amendments to Rule 11Ac1-1, the Firm Quote Rule, to

- increasing quote competition and price discovery, by introducing more orders into the market, which would potentially cause market makers to improve their quotes;
- narrowing quotation spreads; and
- for orders which are automatically executed at the best displayed quotes, improving executions.

Order Handling Release, *supra* note 79, at *6.

221. *See* N.Y.S.E. Guide, *supra* note 59, Rule 79A.12, ¶ 2079A.15, Rule 104.10(4), ¶ 2104.10(4).

222. SuperMontage Adopting Release, *supra* note 36, at *7.

223. Order Handling Release, *supra* note 79, at *10; 17 C.F.R. § 240.11Ac1-4(b). For example, if a market maker is quoting Cisco at 30¼ - 30½ (1000 x 1000) and receives a customer limit order to purchase 500 shares at 30⅜ or better, the market maker must increase its quote to 30⅜ - 30½ (500 x 1000). Where a quotation is presented in the formats B - O (bs x os), B is the quoted bid, O is the quoted offer, bs is the bid size, and os is the offer size. If a customer limit order is placed at the market maker's or specialist's quote and this quote is at the NBBO, the market maker or specialist must increase the size of his quote, unless the size of the limit order is "de minimis." *See* Order Handling Release, *supra* note 79, at *10; 17 C.F.R. § 240.11Ac1-4(b). The size of a limit order will be considered de minimis if it is less than or equal to 10% of the size being displayed by the market maker. Order Handling Release, *supra* note 79, at *20. "NBBO" means the national best bid or offer for a particular stock, when quotes from all market participants are considered. *See* Concept Release, *supra* note 45, at *12, *14. If the above market maker was quoting a bid for Cisco at 30¼ - 30½ (1000 x 1000), and this quote represented the NBBO, if the market maker received a limit order to buy 500 shares at 30¼ or better it would be required to change its quote to 30¼ - 30½ (1500 x 1000).

224. *Id.*

225. *See* 17 C.F.R. § 240.11Ac1-4(b).

226. *Id.*

227. *See* Order Handling Release, *supra* note 79, at *26.

address fragmentation concerns. The first, known as the "ECN Amendment," requires specialists and market makers who place orders with an ECN at a price better than the firm's public quotation to make the price publicly available.[228] However, the ECN Amendment included the "ECN Display Alternative," under which the market maker or specialist's obligation to make the price publicly available will be deemed satisfied if the ECN, with which the order is placed, publicly disseminates its prices and allows broker-dealers to execute against its orders.[229]

The second amendment to the Firm Quote Rule extended the mandatory quote provisions beyond securities traded on their principal market and 19c-3 securities. As a result of the amendment, the mandatory quote provisions now apply to market makers or exchanges that are responsible for one percent or more of the volume of non-19c-3 securities.[230] The Commission found that the growth in trading in non-19c-3 securities had significantly reduced transparency for these securities, and that disparate treatment of 19c-3 and non-19c-3 securities was no longer justified.[231] The one percent threshold was intended to prevent broker-dealers who did not actively trade a security from being subject to the cost burden of maintaining continuous quotations.[232]

VI. ELECTRONIC COMMUNICATIONS NETWORKS AND REGULATION ATS

By 1998, alternative trading systems, primarily ECNs, accounted for more than twenty percent of orders for Nasdaq securities and almost four percent of orders for exchange-listed securities.[233] As a result of the increased volume of trading occurring on ECNs, the Commission worried that these "private markets" were transforming the U.S. securities markets in a manner inconsistent with the goals announced by Congress in the 1975 amendments to the Exchange Act. This situation arose largely from the fact that the ECNs, which resembled exchanges, were nonetheless regulated as broker-dealers.

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228. *Id.* at *2; Rule 11Ac1-1, as amended, 17 C.F.R. § 240.11Ac1-1.

229. Order Handling Release, *supra* note 79, at *2.

230. *Id.* at *42.

231. *Id.*

232. *Id.* at *43.

233. Regulation of Exchanges and Alternative Trading Systems, Exchange Act Release No. 40,760, 68 S.E.C. Docket (CCH) 2045 (Dec. 8, 1998), *available at* 1998 WL 849548, at *2 (S.E.C.) [hereinafter Reg. ATS Adopting Release].

The Commission's primary concern about ECNs appears to have been the ECNs' effect on the ability of public investors to receive best execution of their orders. The simplest example of this effect was the ability of market markers to quote prices on ECNs which were more favorable than those available on Nasdaq or a national exchange.[234] The Commission was also concerned that ECNs were not subject to adequate surveillance for market manipulation and fraud, and that ECNs were not required to ensure that they had adequate systems to accommodate large increases in volume.[235] The adoption of Regulation ATS and related amendments to SEC Rules was intended to address these concerns.

A. *Definition of Exchange*

At the same time it adopted Regulation ATS, the Commission adopted Rule 3b-16 to clarify the definition of an "exchange."[236] The adoption of Rule 3b-16 served the dual purposes of clarifying the applicability of the definition of an "exchange" to electronic trading systems and granting the Commission authority to exempt systems from the definition.[237] Rule 3b-16 provides guidance on the types of entities that will and will not be deemed to meet the definition of an exchange. Generally, an entity will be considered an exchange if it brings together buyers and sellers and establishes fixed rules for executing their

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234. *See id.* at *2. As a result, an investor who placed a limit order to sell Cisco at 30¼ might find his or her order executed at the limit price on Nasdaq while, unbeknownst to the investor, a market maker was bidding 30⅜ on an ECN.

235. *Id.*

236. Whether automated trading systems met the relatively broad definition of "exchange" under Section 3(a)(1) of the Exchange Act was an issue from their inception. When Instinet was first being developed, the Commission recognized the definitional question and proposed Rule 15c2-10, which would have imposed certain filing requirements on such systems but which would not have required registration as an exchange. Proposal to Adopt Rule 15c2-10, Exchange Act Release No. 8,661 (Aug. 4, 1969), *available at* 1969 WL 19502, at *3 (S.E.C.). The proposed rule would have required any broker-dealer operating an automated trading system to file a plan with the Commission describing the system's rules of operations, technology and record-keeping. *Id.* at *3-4. Rule 15c2-10 was never adopted and trading systems operated for many years under formal or informal no-action positions taken by the Commission's Division of Market Regulation. *See, e.g.*, Instinet Corporation, SEC No-Action letter, Fed. Sec. L. Rep. (CCH) ¶ 78,997 (Sept. 8, 1986), *available at* 1986 WL 67657 (S.E.C.); POSIT, SEC No-Action letter, Fed. Sec. L. Rep. (CCH) (July 28, 1997), *available at* 1987 WL 108131 (S.E.C.). In its responses to the requests for no-action submitted by these systems, the Commission's Market Regulation staff, as a condition to its grant of no action relief, typically required the systems to provide data on a quarterly basis regarding their subscribers, denials of applications for participation in the system, subscriber defaults, trading volume, and other items. *See* Instinet Corporation, *supra*, 1986 WL 67657, at *37; POSIT, *supra*, 1987 WL 108131, at *8.

237. Reg. ATS Adopting Release, *supra* note 233, at *5.

orders.[238] An entity will generally not be considered an exchange if it routes orders to a market for execution or operates a "crossing" or "matching" system.[239]

B. Exemption from the Definition of Exchange

With Regulation ATS, the Commission sought to impose new regulations on electronic trading systems without subjecting them to the rigors of registration as an exchange. It accomplished this goal by adopting Rule 3a1-1, which exempts from the definition of exchange those systems that comply with Regulation ATS and do not exercise self-regulatory responsibilities.[240] Subject to volume limitations, the rule exempts a system from the definition of an exchange if it is

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238. Under Rule 3b-16, an entity is considered an exchange if it:

> (1) Brings together the orders for securities of multiple buyers and sellers; and
>
> (2) Uses established, non-discretionary methods (whether by providing a trading facility or by setting rules) under which such orders interact with each other, and the buyers and sellers entering such orders agree to the terms of a trade.

17 C.F.R. § 240.3b-16(a)(1)-(2) (2000). "Non-discretionary methods" are procedures or rules which govern order execution and from which there is generally no deviation. *See* Reg. ATS Adopting Release, *supra* note 233, at *11. For example, exchange rules that establish a priority for the execution of orders in terms of price, time, or some other criteria are non-discretionary methods. The purpose of making the institution of non-discretionary trading methods one of the elements of the definition of an exchange was to exclude routine functions of broker-dealers from the definition. *See id.* One such function is the operation of a block trading desk, in which employees of the broker-dealer execute large customer orders but retain discretion in determining how to fill the orders. *See id.*

239. Under Rule 3b-16, an entity can engage in any or all of the following activities without being considered an exchange:

> (1) Rout[ing] orders to a national securities exchange, a market operated by a national securities association, or a broker-dealer for execution; or
>
> (2) Allow[ing] persons to enter orders for execution against the bids and offers of a single dealer; and
>
> > (i) As an incidental part of these activities, match[ing] orders that are not displayed to any person other than the dealer and its employees; or
> >
> > (ii) In the course of acting as a market maker registered with a self-regulatory organization, display[ing] the limit orders of such market maker's, or other broker-dealer's, customers; and
> >
> > > (A) Match[ing] customer orders with such displayed limit orders; and
> > >
> > > (B) As an incidental part of its market making activities, cross[ing] or match[ing] orders that are not displayed to any person other than the market maker and its employees.

17 C.F.R. § 240.3b-16(b)(1)-(2)(ii)(B). A crossing system generally allows subscribers to enter orders without designating a price, then "crosses" those orders at specified times using a price obtained from another market. Reg. ATS Adopting Release, *supra* note 233, at *8 n.37. Matching systems allow subscribers to enter priced limit orders, then matches buy and sell orders which have the same limit price. *Id.* at *8 n.38.

240. *See* Reg. ATS Adopting Release, *supra* note 233, at *822; *see also* 17 C.F.R. § 240.3a1-1(a).

operated by a national securities association, is in compliance with Regulation ATS, or is exempt from Regulation ATS.[241]

A trading system will no longer be entitled to an exemption from the definition of an exchange if the system exceeds certain volume levels and the Commission determines, after giving the system notice and an opportunity to respond, that an exemption is not appropriate.[242]

C. *Regulation ATS*

The essential purpose of Regulation ATS[243] is to allow developing systems with low volume to operate with minimal regulatory burdens and to require systems with larger volume to comply with more extensive regulation of their quotation dissemination and access standards, depending on the significance of their market presence.[244]

1. Definitions and Exemptions

An "alternative trading system" is generally any organization or system that meets the definition of an exchange but does not set rules governing subscribers' conduct, other than trading conduct, and does not discipline subscribers other than by prohibiting them from trading on the system.[245] Rule 301 provides an exemption from Regulation

241. 17 C.F.R. § 240.3a1-1(a)(1)-(3).

242. The volume levels are as follows:

> 1. Fifty percent of the average daily trading volume in any single security and five percent of the average daily trading volume for any class of security, such as equity securities, listed options, or investment-grade debt; or
>
> 2. Forty percent of the average daily trading volume for any class of security. If a system exceeds these levels for three out of four calendar quarters, the Commission may, but will not automatically, seek to revoke the exemption.

See 17 C.F.R. § 240.3a1-1(b)(1)(i), (ii).

243. Regulation ATS consists of Rules 300 through 303.

244. Reg. ATS Adopting Release, *supra* note 233, at *5-6.

245. The term "alternative trading system" is defined in Rule 300(a) of Regulation ATS as:

> any organization, association, person, group or persons, or system:
>
> (1) That constitutes, maintains, or provides a market place of facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange within the meaning of [Rule 3b-16]; and
>
> (2) That does not:
>
> (i) Set rules governing the conduct of subscribers other than the conduct of such subscribers' trading on such organization, association, person, group of persons, or system; or
>
> (ii) Discipline subscribers other than by exclusion from trading.

17 C.F.R. § 242.300(a)(1), (2)(i)-(ii). The definition excludes systems from the definition if they perform self-regulatory functions because the Commission believes that any system exercising any significant self-regulatory authority should be registered as an SRO. Reg. ATS Adopting

ATS for some entities that are subject to a separate regulatory scheme, either under the Exchange Act or banking laws, or which have been granted an exemption from registration as an exchange based on limited trading volume.[246] The Commission also has the ability to exempt a trading system from some or all of the requirements of Regulation ATS.[247]

2. Broker-Dealer Registration and Filings

Trading systems subject to Regulation ATS must register as broker-dealers.[248] In addition, they are required to file an initial operation report, on Form ATS, at least twenty days before beginning operations as a trading system.[249] The initial operation report is simply a notice filing; no Commission approval is required.[250] A trading system must amend its Form ATS if it proposes a material change to its operations, if it learns the form was inaccurate when filed, or if the form was accurate when filed but later becomes inaccurate.[251] A trading system must also file a "cessation of operations" report if it ceases to operate as an alternative trading system.[252] Filings under Regulation ATS are treated like other reports filed under the Exchange Act for purposes of liability for false or misleading statements, but the filings are confidential.[253]

3. Display and Execution of Orders

The applicability of the provisions of Regulation ATS that govern the public display and execution of orders by an alternative trading system is controlled by the volume in a particular security, not the total volume of the system. As a result, a trading system could be subject to the requirements of Regulation ATS for some securities but not others. The public display and execution provisions apply only to "covered securities," which are exchange-listed or Nasdaq securities.[254] For any

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Release, *supra* note 233, at *26-27.

246. Rule 301 provides that a system does not have to comply with Regulation ATS if it is: 1. registered as a national securities exchange; 2. exempted by the Commission from registration as an exchange based on limited trading volume; 3. operated by a national securities association; or 4. registered as a broker-dealer, or is a bank, and limits the securities it deals in to specified government securities and commercial paper. 17 C.F.R. § 242.301(a)(1)-(4)(ii).

247. *Id.* § 242.301(a)(5).

248. *Id.* § 242.301(b)(1).

249. *Id.* § 242.301(b)(2).

250. Reg. ATS Adopting Release, *supra* note 233, at *34.

251. 17 C.F.R. § 242.301(b)(2)(ii), (iii), (iv).

252. *Id.* § 242.301(b)(2)(v).

253. *See* 15 U.S.C. §§ 78q(a), 78r(a), 78ff(a) (1994); 17 C.F.R. § 242.301(b)(2)(vi), (vii).

254. *See* 17 C.F.R. § 242.301(b)(3); Reg. ATS Adopting Release, *supra* note 233, at *37.

securities for which the trading system displays orders, either to subscribers or third parties, and had trading volume during four of the previous six months of at least five percent of the total average daily volume of the security, the system must supply the best prices to a national securities exchange, or to Nasdaq, for public dissemination.[255] In addition, under Rule 301(b)(3) the system must provide registered broker-dealers with an ability to execute against such orders.[256]

4. Fair Access and Fees

A major issue surrounding alternative trading systems is their ability to charge fees to non-subscribers. Alternative trading systems such as ECNs generate revenue by charging access fees to their subscribers.[257] However, because Regulation ATS requires alternative trading systems, in many cases, to make their orders available to broker-dealers that do not subscribe to the system, Regulation ATS had to address the ability of ECNs to charge fees to these non-subscribers. Rule 301(b)(4) provides only that an alternative trading system may not charge a fee that is "inconsistent with [the] equivalent access to the system" required by Rule 301(b)(3).[258] While the language of the rule is somewhat vague, the Commission, in the adopting release, stated that any fees charged by these systems should be similar to communications or access fees charged by other markets.[259]

A trading system subject to Regulation ATS must establish written standards for granting access to its system, may not apply the standards in a discriminatory or unfair manner, and must keep records and make reports of access grants and denials for any security in which it has twenty percent or more of the average daily volume.[260] Like the public display and order execution provisions, the fair access provisions are applied on a security-by-security basis, so that a trading system can arbitrarily exclude access to trades in some securities but not others.[261] In adopting the fair access requirements, the Commission created an exclusion from these requirements for systems which match customer orders, without displaying them, at a price on or derived from an automated quotation system or transaction reporting plan.[262]

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255. 17 C.F.R. § 242.301(b)(3).

256. *Id.*

257. *See supra* Part II.D (discussing ECNs).

258. 17 C.F.R. § 242.301(b)(4).

259. Reg. ATS Adopting Release, *supra* note 233, at *46.

260. 17 C.F.R. § 242.301(b)(5).

261. Reg. ATS Adopting Release, *supra* note 233, at *50.

262. 17 C.F.R. § 242.301(b)(5)(iii)(A)-(C). For example, some systems match orders prior to

5. System Capacity, Integrity, and Security

Rule 301(b)(6) of Regulation ATS establishes system capacity, integrity, and security requirements for alternative trading systems that meet certain volume thresholds. Like the fair access, public display and order execution standards, the system capacity, integrity and security requirements are applied on a security-by-security basis, although the Commission recognized that, as a practical matter, if the requirements apply to one security, the entire trading system would have to satisfy the requirements.[263] The system capacity, integrity, and security provisions contain an exclusion identical to that applicable to the fair access standards for systems that match orders.[264]

6. Record Keeping

Trading systems subject to Regulation ATS must satisfy extensive record keeping requirements.[265] Trading systems subject to Regulation

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the market opening and execute them at the opening price, or match unpriced orders at the bid and offer. These systems are not subject to the fair access requirements. Reg. ATS Adopting Release, *supra* note 233, at *50.

263. *See* 17 C.F.R. § 242.301(b)(6); Reg. ATS Adopting Release, *supra* note 233, at *50. The volume threshold under Rule 301(b)(6) is twenty percent of the average daily volume for a security in four of the preceding six months. 17 C.F.R. § 242.301(b)(6). Once the threshold is satisfied, for systems that support order entry, order routing, order execution, transaction reporting and trade comparison, the system must:

- establish reasonable capacity estimates;
- conduct capacity stress tests of critical systems;
- institute procedures to review its system development and testing methodology;
- review the vulnerability of its systems to hackers, physical hazards and natural disasters;
- establish adequate contingency and disaster recovery plans;
- have an independent review performed of the system's controls, and have senior management of the system review the report; and
- notify the SEC promptly of significant system outages and changes.

Id. § 242.301(b)(6)(ii).

264. 17 C.F.R. § 242.301(b)(6)(iii).

265. Rule 302 of Regulation ATS requires that the following records be kept:

1. A record of subscribers to the system;
2. Daily summaries of trading which include:
   a. securities traded;
   b. transaction volume for securities including number of trades, number of shares traded, and dollar volume;
   c. transaction volume for debt securities including number of trades and dollar value;
3. Time-sequenced records of order information which include:
   a. the date and time, to the second, that orders are received;
   b. the identity of the security;
   c. the number of shares or the principal amount of bonds;

ATS must preserve certain records for at least three years, the first two years in an "easily accessible place."[266] In addition to the records required by Rule 302, some records that are not required must nonetheless be retained for three years if created.[267]

For the entire period of its existence, a trading system must retain copies of its organizational documents, such as articles of incorporation and copies of reports filed with the Commission.[268] Records required under Regulation ATS, like most records required to be kept by broker-dealers, can be kept electronically, and trading systems can use a third party to maintain these records if certain procedures are followed.[269] Any records kept under Regulation ATS are subject to examination by the Commission.[270]

Systems subject to Regulation ATS must also file quarterly reports on Form ATS-R.[271] The reporting requirements of Form ATS-R are not onerous. The form essentially requires the system to include the volume of trading in each class of security traded on the system, such as exchange-listed stocks, Nasdaq National Market and SmallCap stocks

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d. a special identification if the order relates to a program trade or an index arbitrage trade;

e. designation of the order as a buy or a sell;

f. designation of the order as a short-sale, if applicable;

g. designation of the type of order, such as market, limit, or stop loss;

h. a limit or stop price, if applicable;

i. the date at which the order expires or, for a day order, the time;

j. the time during which the order is in force;

k. any instructions to modify or cancel the order;

l. the type of account, such as retail, wholesale, employee, etc.;

m. the date and time, to the second, that the order was executed;

n. the price at which the order was executed;

o. the size of the executed portion of the order, in number of shares or, for bonds, principal amounts;

p. the identity of the parties to the transaction.

Id. § 242.302.

266. *Id.* § 242.303(a)(1).

267. The following records must be retained if they are created:

- notices to subscribers;
- if the system is subject to the fair access standards, a copy of its access standards and all documents relating to its grants or denials of access;
- all documents related to its compliance with the capacity, integrity and system requirements.

Id. § 242.303(a)(1).

268. *Id.* § 242.303(a)(2).

269. *Id.* §§ 240.17a-4(f), 242.303(d).

270. *Id.* § 242.303(e).

271. *Id.* § 242.301(b)(9).

and listed options, by share or other unit of trading and by dollars, and information on denials of access to the system.[272] In addition, Regulation ATS requires systems to establish procedures to protect confidential trading information.[273] Finally, trading systems are not allowed to use the word "exchange" or a similar term, such as "stock market," in their names.[274]

D. Growth of ECNs

When they first began to flourish following the adoption of the Order Handling Rules, ECNs traded primarily in Nasdaq stocks. The major advantage of ECNs was that they offered far cheaper trade execution than Nasdaq because they allowed customer orders to interact with each other without the participation of a market maker. ECNs charge access fees, but even after payment of these fees, which are no more than $.015 per share and may be reduced based on a subscriber's volume, execution costs are frequently far lower on ECNs than on Nasdaq.[275] Subscribers placing orders into ECNs include market makers, exchange specialists, and institutional investors.[276] The ECN Amendment to the Firm Quote Rule required orders for Nasdaq securities placed in an ECN by exchange specialists and broker-dealers to be displayed on Nasdaq.[277] After the adoption of Regulation ATS, orders by any subscriber, even if not a market maker or specialist, also had to be displayed on Nasdaq if they exceeded the volume thresholds established by Regulation ATS.[278]

For any type of order, the access fees charged by ECNs raised an issue regarding whether SEC regulations allowed ECNs to require non-

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272. Form ATS-R, Federal Securities Laws (CCH) ¶ 33,015, *available at* http://www.sec.gov/pdf/sec2551.pdf (last visited Mar. 19, 2001).

273. 17 C.F.R. § 242.301(b)(10).

274. *Id.* § 242.301(b)(11).

275. *See* Letter from John Oddie, Executive Vice President and Chief Executive Officer, Global Equities, Instinet Corporation, to Jonathan G. Katz, Secretary, Securities and Exchange Commission (Apr. 20, 2000), *available at* http://www.sec.gov/rules/sros/nd9953/oddie1.htm (on file with author) [hereinafter Oddie Letter]; Letter from Annette L. Nazareth, Director, Division of Market Regulation, to Douglas M. Atkin, Chief Executive Officer, Instinet Corporation (Mar. 3, 2000) (on file with author); Letter from Cameron Smith, General Counsel, The Island ECN, Inc., to Jonathan G. Katz, Secretary, Securities and Exchange Commission (May 22, 2000), *available at* http://www.sec.gov/rules/sros/nd9953/smith1.htm (on file with author) [hereinafter Smith Letter].

276. *See* Instinet Real-Time Trading Service, SEC No-Action Letter (Jan. 21, 1997), *available at* 1997 WL 18336, at *1 [hereinafter Instinet Real-Time Trading Service].

277. *See supra* Part V.C.2 (discussing Order Handling Rules, including ECN Amendment).

278. *See supra* Part VI.C.2 (discussing order display and execution requirements of Regulation ATS).

subscribers, who would now be accessing their quotes through Nasdaq, to pay an access fee. With regard to orders submitted by market makers or exchange specialists, the Commission, through the grant of no-action relief, effectively accepted the ECNs' view that the charging of access fees would comply with the requirements of the Display Alternative and that market makers and specialists could use their systems without violating the Firm Quote Rule.[279] Regulation ATS, by requiring that access fees be "reasonable," effectively sanctions their use for customer orders, which are subject to Regulation ATS but not the Firm Quote Rule.[280] As a result, ECNs can require non-subscribers to pay their access fees.[281] By contrast, the Commission has interpreted the Firm Quote Rule as prohibiting Nasdaq market makers from charging access fees with regard to quotes entered directly into Nasdaq.[282]

ECNs did not initially trade NYSE stocks. While ECNs could be treated similarly to Nasdaq market makers and, therefore, were integrated relatively easily into the Nasdaq market, effective trading in NYSE stocks requires the ability to include quotations in the CQS, which combines quotes in exchange-listed stocks traded in different markets.[283] However, ECNs were not allowed direct access to the CQS because they were not registered exchanges.[284] It was proposed that ECNs be granted indirect access to the CQS through Nasdaq's "Third Market," in which exchange-listed stocks were traded using the CAES automatic execution system.[285] Under this proposal, ECNs, like other CAES participants, would then be linked to other markets through the

279. *See, e.g.*, Instinet Real-Time Trading Service, *supra* note 276, at *6.

280. *See supra* Part VI.C.4 (discussing provisions of Regulation ATS relating to fair access and fees).

281. *See* Instinet Real-Time Trading Service, *supra* note 276, at *2-3.

282. M.H. Meyerson & Co., Inc., SEC No-Action Letter (May 5, 1998).

283. *See* Mark Hendrickson, *Can Island Succeed Trading Listed Stocks?*, SEC. INDUS. NEWS, Feb. 14, 2000; *see also supra* Part IV.B (describing systems for dissemination of transaction and quotation information, including the CQS).

284. *See* Hendrickson, *supra* note 283; *Island Unveils Plan to Bring Competition to NYSE-listed Market*, BUS. WIRE, Apr. 3, 2000.

285. *See infra* Part VII.A.1 (describing Nasdaq's SOES, CAES and SelectNet Systems). Though Nasdaq's Third Market is referred to as a system, it is not a distinct system in the technological sense. Rather, it is a marketplace through which Nasdaq market makers can trade NYSE-listed stocks using CAES. *See* Notice of Filing of Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to ECN/ATS Participation in the ITS/CAES System, Exchange Act Release No. 42,353, 71 S.E.C. Docket (CCH) 1164 (Jan. 20, 2000), *available at* 2000 WL 63464, at *2 (S.E.C.). This marketplace will be referred to as "Nasdaq's Third Market," to distinguish it from the "third market" which is the generic term for OTC listing of listed securities. *See supra* Part IV.D (discussing the third market).

Intermarket Trading System. However, ECNs were reluctant to accept this proposal.[286]

In March 2000, the SEC approved a Nasdaq rule proposal under which ECNs and other alternative trading systems would be allowed to participate in Nasdaq's Third Market, but only if they registered with Nasdaq as "CAES/ITS Market Makers."[287] The Nasdaq rule change did not address the majority of the ECNs' concerns regarding the trading of exchange-listed stocks. For example, as CAES/ITS Market Makers, ECNs must maintain two-sided quotes. However, Nasdaq did propose to modify the CAES so that ECNs would not be subject to automatic execution, which would eliminate the dual liability problem.[288] The rule change did not immediately lead to the participation of ECNs in the CAES/ITS system.[289] In June 2000, however, Nasdaq reached an agreement with three ECNs, Bloomberg Tradebook, BRUT, and MarketXT, to participate in Nasdaq's Third Market system, which was renamed "InterMarket" at the time of the agreement.[290] However, it was a fourth ECN, Archipelago, which was the first to trade exchange-listed stocks through the InterMarket system, in August 2000.[291]

286. ECNs opposed access through Nasdaq because they did not want to be dependent on Nasdaq's technology, which they believe is outdated, and because ITS requires participants to maintain a two-sided market, which could require ECNs to act as principals when their quotes were accessed, despite their established practice of only acting as agents. *See* Island ECN, Inc., *Tackling the Barriers to Trading NYSE Stocks*, *available at* http://www.island.com/MarketsForum/viewpoints/index.htm (last visited Mar. 19, 2001) [hereinafter *Tackling the Barriers to Trading NYSE Stocks*]; Hendrickson, *supra* note 283. In addition, ECNs did not want to be subject to ITS's trade-through rule, which effectively prohibited investors from choosing a market for execution on any basis other than price. *See Tackling the Barriers to Trading NYSE Stocks*, *supra*. Finally, ECNs were concerned that they would be subject to double executions because any participants in CAES are subject to the system's automatic execution feature. *See* Order Granting Approval to Proposed Rule Change Relating to ECN and ATS Participation in the ITS/CAES System, Exchange Act Release No. 42,536, 71 S.E.C. Docket (CCH) 2088 (Mar. 16, 2000), *available at* 2000 WL 282348, at *2 (S.E.C.) [hereinafter ECN-ITS Release]. The prospect of double execution could have arisen if, for example, an ECN displayed a customer buy order through ITS and sell orders came into ITS and the ECN at the same time. *Id.* at *4 n.16. The ITS sell order would be automatically executed against the ECN buy order, while the ECN would be obligated under the Firm Quote Rule to also execute the sell order coming in through the ECN. *See id.*

287. ECN-ITS Release, *supra* note 286.

288. *Id.* at *2.

289. Island, one of the major ECNs, continued to press for direct access to the CQS. *Island Unveils Plan to Bring Competition to NYSE-listed Market*, *supra* note 284.

290. Press Release, Nasdaq, Nasdaq InterMarket Forges Links with Major ECNs (June 13, 2000), *at* http://www.nasdaqnews.com/news/pr2000/ne_section00_139.html.

291. Press Release, Nasdaq, Archipelago Begins Trading in Nasdaq InterMarket (Aug. 8, 2000), *at* http://www.nasdaqnews.com/news/pr2000/ne_section00_180.html.

VII. THE EVOLUTION OF NASDAQ

The NASD has been at the center of much of the controversy generated by electronic trading. The organization is in the unusual position of acting as an SRO and owning Nasdaq, a dominant stock market and unmistakably commercial enterprise. Even more troubling, the NASD regulates ECNs, with which Nasdaq has competed from their inception. To fully understand the NASD's and Nasdaq's unique role in the current market structure dilemma, one needs to be familiar with the development of Nasdaq.

When Nasdaq was originally established, it was merely an automated extension of the OTC market, where dealers could disseminate bid and offer quotes for securities but were not obligated to execute orders.[292] All actual transactions were agreed upon through telephone communications. This section discusses Nasdaq's nearly-completed evolution from a simple quotation system operated by an SRO into a massive stock market. First, this section will discuss the development of Nasdaq's SOES and CAES systems, which introduced automatic executions to Nasdaq, and its SelectNet System, which allows electronic communications. Next, it will discuss the market's SuperSOES system, which is a preliminary step in turning the one-time OTC market into the equivalent of a stock exchange. Finally, it will discuss the controversial SuperMontage proposal, which will essentially complete the evolution and, some believe, drive the ECNs out of business.

A. *SOES, CAES and SelectNet Systems*

1. Development of Systems

Nasdaq introduced its Computer Assisted Execution System ("CAES"), its first automatic execution system, in February 1981.[293] When it was originally introduced, CAES was limited to listed securities, or the so-called "third market."[294] Under CAES, market makers who choose to utilize the system introduce quotes into it, which can then be automatically executed by firms that participate in the system as "order routing" participants.[295] Order routing participants

292. *See supra* Part II.B (discussing the history of Nasdaq).

293. A Monitoring Report on the Operation and Effects of Rule 19c-3 under the Securities Exchange Act of 1934, Exchange Act Release No. 18,062, 23 S.E.C. Docket (CCH) 650 (Aug. 25, 1981), *available at* 1981 WL 31171, at *15 (S.E.C.) [hereinafter Monitoring Report].

294. Monitoring Report, *supra* note 293, at *15 n.69; *see supra* Part IV.D (describing the third market).

295. Monitoring Report, *supra* note 293, at *15.

electronically deliver orders into CAES that can be directed to a particular CAES market maker. These orders will automatically be executed against the quote of the CAES market maker to whom the order is directed, assuming the size of the order does not exceed the market maker's quoted size.[296] An order routing firm that does not wish to route an order to a particular CAES market maker marks the order "undesignated."[297] CAES routes undesignated orders to CAES market makers for automatic execution based on time priority.[298]

In 1985, Nasdaq instituted another automatic execution system known as the Small Order Execution System ("SOES"). SOES was designed to make it easier for small investors to obtain execution of their orders.[299] Participation in SOES was initially voluntary. However, once a market maker chose to participate in the system, it could not withdraw without the consent of the NASD.[300] Initially, the primary difference between CAES and SOES was that CAES was for securities traded in the third market and was not limited to orders of a certain size.[301]

In 1988, Nasdaq introduced SelectNet, which does not provide for automatic executions but allows broker-dealers to negotiate transactions through electronic communications.[302] Broker-dealers use SelectNet to

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296. *Id.* at *15 n.70.

297. *Id.*

298. *Id.*

299. Order Approving Proposed Rule Change to Define Professional Trader for Purposes of the Small Order Execution System, Exchange Act Release No. 26,361, 42 S.E.C. Docket (CCH) 601 (Dec. 15, 1988), *available at* 1988 WL 240144, at *1 (S.E.C.) [hereinafter Definition of Professional Trader]. As originally instituted, under the SOES system orders for up to 500 shares were automatically executed at the inside bid or offer of market makers who participated in SOES. *Id.*

300. *Id.* at *4.

301. Order Approving Proposed Rule Change, Exchange Act Release No. 21,742, 32 S.E.C. Docket (CCH) 564 (Feb. 12, 1985), *available at* 1985 WL 61354, at *3 n.12 (S.E.C.). Later, when SOES became mandatory for certain securities, an additional difference arose because CAES remained voluntary. However, the difference relating to the types of securities traded disappeared because CAES was later expanded to allow the trading of Nasdaq NMS Stocks. *See* Receipt of Application for Exemption, Exchange Act Release No. 18,398, 24 S.E.C. Docket (CCH) 508 (Jan. 7, 1982), *available at* 1982 WL 31909, at *1 n.4 (S.E.C.). In June 1994, participation in CAES was made mandatory for market makers trading listed securities, or "third market makers," but remained voluntary for market makers trading in Nasdaq stocks. Order Granting Accelerated Approval to Proposed Rule Change, as Amended, Exchange Act Release No. 25,791, 41 S.E.C. Docket (CCH) 91 (June 9, 1988), *available at* 1988 WL 239722, at *1 (S.E.C.).

302. Order Approving Proposed Rule Change and Notice of Filing and Order Granting Accelerated Approval to Amendment Nos. 1, 2 and 3 to the Proposed Rule Change by the National Association of Securities Dealers, Inc. to Modify the NASD's Small Order Execution System and SelectNet Service, Exchange Act Release No. 42,344 (Jan. 14, 2000), *available at*

make offers for transactions at prices between the inside bid and offer.[303] SelectNet was not intended to give rise to "liability orders, or orders that market makers are obligated to execute."[304] However, when the Firm Quote Rule was adopted in 1978, orders placed through SelectNet effectively became liability orders because Nasdaq interpreted the Quote Rule to require market makers to honor quotes disseminated through SelectNet.[305]

The market crash of 1987 led to a significant modification of the SOES system. It was widely reported that during the crash Nasdaq market makers did not answer their phones to avoid buying stock from panicked investors.[306] As a result, the NASD modified the SOES system to require market makers in Nasdaq National Market securities to participate in SOES.[307] In 1988, the NASD increased the maximum SOES order size to 1,000 shares, then introduced a system under which the maximum was either 200, 500 or 1,000 shares, depending on the volume, price and number of market makers associated with a security.[308] In addition, it increased the penalty for unexcused withdrawals from the SOES system from a two-day suspension to a twenty-day suspension.[309]

2. SOES Bandits

As a result of the 1988 changes in the SOES system, a group of traders, who came to be known as "SOES bandits," took advantage of the system's automatic execution features to generate huge trading profits at the expense of market makers.[310] The primary way in which the SOES bandits generated profits was by placing orders in the SOES system when a market maker did not update its quote quickly enough.[311]

2000 WL 44120, at *1 n.11 (S.E.C.) [hereinafter SuperSOES Adopting Release].

303. *Id.* at *1.

304. *Id.* at *2.

305. *Id.*

306. *See, e.g.*, Rob Wells, *What's Nasdaq? A Look Under the Hood at the Nation's Second-Largest Stock Market*, ST. LOUIS POST DISPATCH, Oct. 1, 1995, at 14D.

307. Definition of Professional Trader, *supra* note 299.

308. Order Granting Accelerated Approval to Proposed Rule Change, as Amended, Exchange Act Release No. 25,791, 41 S.E.C. Docket (CCH) 91 (June 9, 1988), *available at* 1988 WL 239722, at *2 (S.E.C.).

309. *Id.* at *2 n.9.

310. William Power, *OTC Pros Aim to Keep what Small Investors Have*, WALL ST. J., Oct. 5, 1988, at C1.

311. *Id.*

This failure usually occurred when market conditions changed rapidly, or following the release of news on a company.[312]

The NASD, spurred on primarily by its market making firms, engaged in an extended battle with the SOES bandits in an effort to limit what was perceived as the SOES bandits' abuse of the SOES system.[313] The NASD believed that the SOES bandits prevented small investors from obtaining execution of their orders, and the NASD therefore adopted several changes to the rules governing the SOES system which were designed to curtail the activities of the SOES bandits. In August 1988, the NASD adopted an interpretation to the SOES rules to eliminate the practice of SOES bandits evading the maximum order size requirement by "splitting" a single order into several smaller orders below the maximum order size.[314] In December 1988, the NASD adopted a rule change under which trades originating from a "professional trading account" could not be entered into the SOES system.[315] In October 1991, the NASD proposed a set of rule changes that included a broadening of the definition of "professional trading account" by, among other things, allowing additional factors to be considered in determining whether an account met the definition.[316] In addition, the amendments proposed in October 1991 instituted a fifteen-second delay between executions by a particular market maker,

312. For example, if a broker-dealer was quoting Sun MicroSystems at 30 - 30¼ and the inside bid and offer fell to 29½ - 29¾ before the broker-dealer updated its quotes, it might find itself deluged with orders from SOES bandits "hitting" its bid of 30, i.e., placing orders that were automatically executed at 30. As a result, the slow market maker would incur large losses at the expense of the SOES bandits.

313. For a more complete discussion of the rise of the SOES bandits and the NASD's attempt to control them, see Section 21(a) Report, *supra* note 2, at *213-55.

314. Section 21(a) Report, *supra* note 2, at *220-21. Under the interpretation, two or more trades would be considered a single order if they stemmed from a "single investment decision." *Id.* at *221 n.153. This interpretation created a presumption of a single investment decision for trades which occurred during a five-minute period in accounts controlled by the same individual. *Id.*

315. *Id.* at *223. Under the new rules an account was considered a professional trading account if:

- five or more "day trades," or purchases and sales of the same security in the same day, were made in the account using the SOES system; or
- there was a professional trading pattern in the account, which would be indicated by a pattern of day trades, a high volume of day trades compared with long-term transactions, or a high volume of day trades in relation to the size of the account.

Id. at *223 n.155.

316. *Id.* at *224. These factors included an "excessive frequency" of short-term trading or short-sales transactions, trading of discretionary accounts, or direct access to Nasdaq quotation screens or SOES terminals. *Id.* at *225 n.158.

to give market makers time to update their quotes.[317] The Commission approved all of the October 1991 proposed amendments, but the expansion of the definition of professional trading account was challenged in the Court of Appeals for the District of Columbia Circuit, and repealed in the light of criticism by the court.[318]

In June 1994, in an attempt to reduce SOES abuses, the NASD proposed to adopt a system known as N*PROVE, which would ultimately have replaced SOES, and to make interim modifications to the SOES rules pending adoption of the N*PROVE system.[319] The N*PROVE system never came into existence because the NASD withdrew the N*PROVE proposal without any Commission action.[320] The Commission approved the interim SOES rules in December 1993, but only for a one-year pilot period.[321] The Commission declined the NASD's request for an extension of this one-year period, and the rules were phased out.[322] The NASD actively sought to control the SOES bandits by conducting frequent examinations in an effort to find violations of the SOES rules, instituting numerous disciplinary actions against SOES firms, and closely scrutinizing membership applications of firms who seemed likely to abuse the SOES system.[323]

B. SuperSOES

The Nasdaq's move toward the functional equivalent of an exchange continued with a rule proposal, filed in February 1999 and approved in January 2000, under which Nasdaq will create a new "SuperSOES" system.[324] At the time the proposal was filed, the SOES rules, which had been amended on numerous occasions, provided that the system was mandatory for market makers in Nasdaq National Market securities

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317. *Id.* at *227.

318. *Id.* at *225-26; Timpinaro v. SEC, 2 F.3d 453 (D.C. Cir. 1993).

319. Section 21(a) Report, *supra* note 2, at *223 n.155.

320. *Id.* at *228.

321. *Id.* at *230.

322. *Id.* at *235-36.

323. Section 21(a) Report, *supra* note 2, at *237-55. The Commission later found that the NASD devoted too much attention to the activities of the SOES bandits, while neglecting other problems in the Nasdaq market. *See infra* note 406 and accompanying text (discussing SEC disciplinary action against the NASD).

324. SuperSOES Adopting Release, *supra* note 302. The SuperSOES system was intended as an interim step before the introduction of an even more radical change to Nasdaq known as "SuperMontage." *See id.*; *see also infra* Part VII.C (discussing the SuperMontage proposal). The implementation of SuperSOES is now not expected to occur until after Nasdaq has completed its decimalization plan in April 2001. Mary Schroeder, *Nasdaq Adds Second Pilot Date for Phase-In of Decimals,* SEC. INDUS. NEWS, Jan. 22, 2001.

and voluntary for market makers in Nasdaq SmallCap securities.[325] One of the problems with the SOES and SelectNet systems, which operate separately, was that they frequently subjected market makers to dual liability.[326] A market maker who executed a trade through SelectNet might face dual liability if an order was automatically executed against its quote at about the same time through SOES.[327]

The new SuperSOES system, known more formally as the "Nasdaq National Market Execution System," will provide for automatic execution of orders for Nasdaq National Market securities of up to 999,999 shares.[328] The SuperSOES System will introduce a "reserve size functionality" under which a market maker can display part of a customer's order with the remainder held in reserve. The portion of the order in reserve will not be displayed. The system will automatically "refresh" the quote when it is executed against.[329] The SuperSOES system will maintain a penalty for market makers who do not refresh a quote when an order is executed against it.[330] Nasdaq market makers will be required to participate in SuperSOES and to permit automatic executions against their quotes.[331] The SOES system will remain essentially unchanged for Nasdaq SmallCap securities.[332]

325. SuperSOES Adopting Release, *supra* note 302, at *1. The maximum SOES sizes for National Market securities ranged from 200 to 1,000 shares, depending on the price and average daily volume of the securities. *See id.*; NASD NOTICE TO MEMBERS 88-93 (June 22, 1988). The maximum for SmallCap securities was 500 shares. SuperSOES Adopting Release, *supra* note 302, at *1.

326. SuperSOES Adopting Release, *supra* note 302, at *2.

327. *See id.*

328. *Id.* at *2; Notice of Filing and Immediate Effectiveness of Proposed Rule Change by the National Association of Securities Dealers, Inc. relating to Maximum Share Size Order Parameters for the Nasdaq National Market Execution System, Exchange Act Release No. 43,575 (Nov. 16, 2000), *available at* 2000 WL 1720608 (S.E.C.) [hereinafter SuperSOES Amendment]; *see also After Delays, Nasdaq Appears Ready to Announce New Timetable for SuperSOES*, SEC. WK., Nov. 6, 2000, *available at* 2000 WL 4734136. The SuperSOES proposal as originally filed by Nasdaq and approved by the SEC had a maximum order size of 9,900 shares. *See* SuperSOES Adopting Release, *supra* note 302, at *2. Nasdaq later amended the rules governing the system to increase the maximum order size to 999,999 shares. SuperSOES Amendment, *supra*.

329. SuperSOES Adopting Release, *supra* note 302, at *3.

330. *Id.* at *4.

331. Notice of Filing of Proposed Rule Change by the National Association of Securities Dealers, Inc. to Include UTP Exchanges in the Nasdaq National Market Execution Service, Exchange Act Release No. 42,847, 72 S.E.C. Docket (CCH) 1247 (May 26, 2000), *available at* 2000 WL 690034, at *2 (S.E.C.) [hereinafter SuperSOES UTP Amendment]. The original SuperSOES proposal would not have allowed UTP exchanges to provide or receive automatic executions, but was later amended to allow specialists on UTP exchanges to choose to utilize the automatic execution feature. *Id.*; *see also supra* Part IV.E (discussing UTPs).

332. SuperSOES UTP Amendment, *supra* note 331, at *2 n.15. In addition to having a dramatically higher maximum automatic execution order size, SuperSOES will be a departure

To eliminate the possibility of dual executions, in conjunction with the implementation of SuperSOES, Nasdaq will modify the SelectNet system to allow broker-dealers to negotiate trades through SelectNet without being subject to the requirements of the Firm Quote Rule. Nasdaq will accomplish this goal by requiring participants to deliver only "oversized" orders to market makers publishing quotes on SelectNet.[333] Stated another way, the system will prohibit liability orders from being entered in SelectNet.[334] The idea behind requiring oversized orders is to allow the quoting broker-dealer to choose to either execute the order or negotiate with the party initiating the order.[335] Under SuperSOES, the prohibition on entering liability orders in SelectNet will not apply to UTP exchanges that do not use the automatic execution feature of SuperSOES.[336]

The SuperSOES system will provide for both "order entry" and "full participation" ECNs. Order entry ECNs will be obligated to fill orders directed to them that match their quotes, but will not be subject to the automatic execution requirement applicable to SuperSOES market makers.[337] Order entry ECNs will, upon request, be able to receive

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from the previous Nasdaq system for the following reasons:

- It allows, for the first time the size of a market maker's quote to be automatically reduced when orders are executed against it. Nasdaq believed that the SOES' failure to provide this automatic reduction discouraged market makers from displaying their full quote size.
- It eliminates the "SOES preferencing" under which a party entering a SOES order designates a particular market maker to whom the order should be routed.
- It imposes a fee of $.50 per side for each execution.

Id. at *3-4.

333. SuperSOES Adopting Release, *supra* note 302, at *4.

334. Specifically, the system will prohibit broker-dealers from directing orders into SelectNet unless they are either "all-or-none" orders of a size at least 100 shares greater than the market maker's quote, or "minimum acceptable quantity" orders with a minimum acceptable quantity of at least 100 shares greater than the quote. *Id.* The system will be programmed to reject orders which do not satisfy these requirements. *Id.* For example, if a broker-dealer is quoting 50 - 50¼ (1000 x 1000) in SelectNet, the system will reject an order to sell 1,000 shares at 50 which is directed to the market maker. However, it will allow an order to be directed to the market maker if it is an all or none order to sell 1,100 shares at 50, or if it is an order to sell 3,000 shares with a minimum acceptable quantity of 1,100.

335. *See id.*

336. SuperSOES Adopting Release, *supra* note 302, at *4.

337. *Id.* Even if the SuperSOES system did not require ECNs to honor quotes entered into the system, they would be required to honor them under the Firm Quote Rule. *See supra* Part V.C.1 (discussing the Firm Quote Rule). There is a difference between being required to execute transactions under the Firm Quote Rule and being subject to automatic executions because there are exceptions to the Firm Quote Rule. *See supra* note 211 and accompanying text (discussing exceptions to the Firm Quote Rule). For example, an ECN will be allowed to decline a SuperSOES order if it is in the process of executing an order received through the ECN when the

automatic executions from SuperSOES market makers.[338] Full participation ECNs will essentially be treated as SuperSOES market makers. They will be subject to automatic executions, but other broker-dealers will be allowed to direct only oversized orders to them through SelectNet.[339]

C. SuperMontage

Nasdaq introduced a proposal to radically modify its systems in October 1999. This proposal, known as "SuperMontage," was approved by the SEC in January 2001, but the system modifications are not expected to be completed until early 2002.[340] Once the system is operational, however, the evolution of Nasdaq into the equivalent of an electronic stock exchange will be nearly complete, and the existence of the ECNs will be threatened.

1. Deficiencies in Current Nasdaq System

The current Nasdaq system lacks some of the features offered by the ECNs. One advantage for broker-dealers using ECNs is that they can post quotations anonymously because their quotes are aggregated with quotes of other market participants and appear in the Nasdaq system under the MMID of the ECN.[341] In addition, ECNs typically display interest not only at the so-called "top of the market," i.e., the best bid and offer, but at several price levels away. Displaying orders beyond the top of the market allows users to view the "depth" of the market. Nasdaq currently displays orders at the top of the market only.[342]

In addition to lacking some of the features of ECNs, Nasdaq has other disadvantages for market participants. One of these is the prospect of dual liability when orders are received near the same time

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SuperSOES order is received. *See id.*

338. SuperSOES Adopting Release, *supra* note 302, at *5.

339. *Id.* "Like an order entry ECN, a full participant ECN may request order entry capability in [SuperSOES], which will allow the ECN to obtain automatic executions against the quotations of [SuperSOES] market makers." *Id.*

340. Michael Schroeder & Greg Ip, *Plan to Upgrade Nasdaq Trading Passes the SEC*, WALL ST. J., Jan. 11, 2001, at C1, *available at* 2001 WL-WSJ 2850758.

341. *See* Archipelago, *The ARCA Advantage*, *at* http://www.tradearca.com/company/the_arca_advantage.asp (last visited Mar. 19, 2001); Island, *About Island*, *at* http://www.island.com/about/index.htm (last visited Mar. 19, 2001). Displaying orders anonymously allows market participants to execute large trades with less of a market impact than would be possible if their identity were known.

342. Nasdaq displays market maker quotes which are not at the top of the market, but not customer orders away from the top of the market. *See Nasdaq Trader, Nasdaq Workstation II*, *at* http://www.nasdaqtrader.com/trader/tradingservices/productservices/productdescriptions/nwiidescription.stm (last visited Mar. 19, 2001).

on SelectNet and SOES.[343] The SuperSOES system will reduce, but not eliminate, this potential liability.[344] The Nasdaq system also makes it difficult for market makers to comply with the Order Handling Rules because a market maker which receives a customer limit order must amend its quote to reflect the placement of the order if it improves or increases the size of the quote.[345]

2. Summary of SuperMontage's Proposed Changes

Before the SuperSOES proposal was even approved, the NASD proposed to eliminate the above disadvantages to its systems with a radical modification that built upon the changes incorporated into SuperSOES. The proposal was approved by the Commission on January 10, 2001, and the system is expected to begin operations in the first quarter of 2002.[346] The new system, known as "SuperMontage," will expand the SuperSOES order display, and, unlike SuperSOES, will be applicable to all Nasdaq securities, including National Market and SmallCap securities.[347] Under the SuperMontage system, the Nasdaq Workstation II display will still contain the "quotation montage" containing the quotes and orders of market participants.[348] However, the quotation montage will be amended slightly and will be supplemented by the Nasdaq Order Display Facility, or "SuperMontage," which will show, in addition to the best bid and offer for a security, the trading interest two price levels away.[349] The trading interest displayed will be of market makers, ECNs and exchanges with UTPs for Nasdaq stocks ("UTP exchanges").[350]

Another feature introduced with the SuperMontage system is the ability of Nasdaq market makers and ECNs, collectively known in the SuperMontage proposal as "Nasdaq Quoting Market Participants," to display their trading interest anonymously.[351] As with the SuperSOES

343. *See supra* notes 326-27 and accompanying text.

344. SuperMontage Proposal, *supra* note 101, at *9. SuperSOES will eliminate most of the potential for dual liability by requiring most SelectNet orders to be "oversized." However, even after SuperSOES is in place, UTP exchanges that do not accept automatic executions will be allowed to enter orders into SelectNet which are not oversized, and market makers can therefore still be subject to dual liability in connection with orders from these exchanges. *See* SuperSOES UTP Amendment, *supra* note 331, at *1.

345. *See supra* Part V.C.2 (discussing compliance with Order Handling Rules).

346. *Plan to Upgrade Nasdaq Trading Passes the SEC*, *supra* note 340.

347. *See* SuperMontage Proposal, *supra* note 101, at *1.

348. *See supra* note 70 (illustrating layout of quotation montage).

349. *See supra* note 70.

350. *See supra* note 70; *see also supra* Part IV.E (describing unlisted trading privileges).

351. SuperMontage Proposal, *supra* note 101, at *1.

system, Nasdaq Quoting Participants will be able to use "reserve size," which will not be displayed in the quotation montage or Order Display Facility, but against which orders can be executed. The SuperMontage system will also introduce an Order Collector Facility, which will provide a central facility through which all orders will be channeled for execution. Use of the SuperMontage system will be voluntary, and Nasdaq will make an alternative system through which market participants can enter quotations and report transactions.[352]

3. Nasdaq Order Display Facility

The Order Display Facility introduced with the SuperMontage System is designed to improve the depth of the displayed trading interest while at the same time allowing market participants to display orders anonymously. The quotation montage will still display the quotes of market makers in priority of price and time. However, the Order Display Facility, located in a separate section of the workstation display, will show "trading interest," i.e., participant quotes or customer orders, at not only the best bid or offer price but also at the two next best prices.[353] In addition, market participants will be allowed to designate quotes or orders as "attributable" or "non-attributable," and will be able to designate a "reserve size."[354] Attributable quotes or orders will always appear next to the MMID[355] of the market participant in the quotation montage. If attributable orders are within the best three price levels of the market, they will be included in the Order Display Facility.[356] Non-attributable orders will also be placed in the Order Display Facility, assuming they are within the best three price levels of the market, but not next to the MMID of the Quoting Market Participant in the quotation montage.[357] Instead, Nasdaq introduced a special MMID, with the designation of "SIZE," on both the bid and offer sides

352. SuperMontage Adopting Release, supra note 36, at *27-28. If this alternative facility were not provided, SuperMontage would essentially be mandatory because over-the-counter market participants, by virtue of Commission and NASD regulations, are effectively required to publicly display their quotes and orders through the NASD. *See id.*; *see also* 17 C.F.R. § 240.11 Ac1-1(c)(1) (requiring broker-dealers to communicate quotes to NASD); *supra* Part VI.C.3 (describing order display requirements of Regulation ATS).

353. SuperMontage Proposal, *supra* note 101, at *4.

354. *Id.* at *5. Market makers will, however, still be required to maintain a two-sided quote attributable to their MMID. *Id.* at *37.

355. *See supra* Part II.C.2 (describing Nasdaq's operation).

356. SuperMontage Proposal, *supra* note 101, at *5. However, in the Order Display Facility, all attributable and non-attributable orders at a particular price on one side of the market would be aggregated, without reference to their source. *Id.* at *5-7.

357. *Id.* at *5.

of the market which, for purposes of display in the quotation montage, will aggregate the total of all non-attributable trading interest in a security.[358] Nasdaq believes that the SuperMontage System, by allowing market makers to display customer orders in the Order Display Facility, will enable them to comply with the Display Rule without changing their quote each time they receive a customer order at a price superior to their quoted price.[359]

The SuperMontage System will retain the "reserve size" feature introduced with SuperSOES. The reserve size feature will be available to market participants who display size of at least 1,000 shares.[360] Reserve size will not be displayed in either the quotation montage or the Order Display Facility. However, if the size of a Quoting Market Participant's quote is reduced, or "decremented," to zero as a result of an execution, the system will automatically replenish the displayed size.[361] The SuperMontage system will include a data feed called "NQDS Prime" which will provide, for a fee, real-time information on the quotes in the Order Display Facility, including those two price levels away from the NBBO.[362]

4. Order Collector Facility

A central feature of the SuperMontage System is an "Order Collector Facility," which will allow market participants to transmit multiple quotes and orders, at different price levels, into the Nasdaq system.[363] The Order Collector Facility will also provide a single point of entry through which market participants can gain access to quotes and orders in either the Order Display Facility or the quotation montage, and eliminate dual liability for market makers by creating a single forum in which orders for automatic execution will be received.[364] Once SuperMontage is implemented, a market participant who wishes to place an order will enter a "non-directed" order into the Order Collector Facility, which is an order not designated for a particular market maker

358. *Id.* at *6.

359. *Id.*

360. *Id.* The shares displayed could be either attributable or not-attributable. *Id.*

361. *Id.*

362. Notice of Filing of Amendment No. 8 to Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to the Establishment of Nasdaq Order Display Facility and to Modifications of the Nasdaq Trading Platform, Exchange Act Release No. 43,514 (Nov. 3, 2000), *available at* 2000 WL 1671418, at *46 (S.E.C.) [hereinafter Amendment No. 8 Proposal].

363. *Id.* at *8.

364. *Id.*

or ECN.[365] The Order Collector Facility would then deliver the order for automatic execution to a market maker or any ECN that participates in the automatic execution feature, or as a liability order to any ECN that does not elect to participate in the automatic execution feature. The system will contain a feature under which the quotes of market participants will be automatically reduced when orders are executed against the quotes.[366] The SuperMontage system will require ECNs which do not accept automatic executions to meet requirements on responsiveness to orders, designed to ensure that they generally respond to orders within five seconds.[367]

5. Order Execution Algorithm

One of the more controversial aspects of the SuperMontage system is the "Order Execution Algorithm," i.e., the set of rules that determine how orders are routed to particular market participants. The SuperMontage system generally preserves the price/time priority of the current Nasdaq system, under which non-directed orders are routed to the best quote and, between two market participants quoting the same price, to the participant whose quote was first in time.[368] However, the SuperMontage has a major exception to the Order Execution Algorithm, for orders entered by a Quoting Market Participant. These orders will not be subject to the algorithm, and instead will be matched against the Quoting Market Participant's own quote, or "internalized," if the Quoting Market Participant is at the NBBO.[369]

As originally proposed, the Order Execution Algorithm gave priority to the market maker whose customer placed the order, followed by market participants who receive automatic executions, then ECNs. After this priority was followed for the primary quotes of these market participants, the system would have accessed their reserve size, in the same priority. The quotes of UTP exchanges would have been last in line, after both the primary quotes and reserve size of market makers,

365. *Id.* at *10.

366. *Id.* at *10-11.

367. ECNs which do not accept automatic executions will have thirty seconds to respond to any given order. *See* Amendment No. 8 Proposal, *supra* note 362, at *48. However, an ECN's response time would be measured with regard to several orders, and the ECN will generally have to respond to non-directed orders in five seconds. *Id.* If an ECN "regularly" fails to respond within five seconds, Nasdaq will prevent the ECN from entering quotes into the system. *Id.* at *49. The original SuperMontage proposal would have removed an ECN's quote from the system if the ECN did not respond to a non-directed order in seven seconds. *Id.* at *48.

368. *See id.* at *12. The price/time priority is intended to reward market makers who aggressively update their quotes.

369. *See supra note* 223 (defining NBBO); *supra* Part IX.A.2 (discussing internalization).

automatic execution participants, and ECNs.[370] After following this order, the system would have moved to the next price level.

The priority of order execution in the original SuperMontage proposal would have effectively discriminated against ECNs that did not accept automatic order executions, because these ECNs would have lower priority than market makers and ECNs that accepted automatic executions.[371] As some commenters opposed this favored treatment, with Amendment No. 4 Nasdaq proposed to eliminate the distinction between ECNs that accept automatic executions and those that do not, but introduced a new distinction: ECNs that charge an access fee would be last in line.[372] Nasdaq justified this treatment by stating that an access fee "represents an increase in trading costs and [is] clearly an inferior price."[373]

The proposal to give lowest priority to ECNs that charge an access fee was met with strong opposition from the ECNs, which emphasized the fact that Nasdaq was preserving its own ability to charge a variety of fees from market participants.[374] In addition, the ECNs disputed Nasdaq's assertion that quotes of ECNs which charge an access fee represent "clearly an inferior price."[375] A logical solution to the access fee debate was to have the quotes of ECNs reflect the access fee. In Amendment No. 6 to the SuperMontage proposal, Nasdaq asserted that the move to decimalization would likely accomplish this objective and proposed to give ECNs the same priority as market makers if their quotes, after access fees, were equal to the quotes of market makers.[376]

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370. *See supra note* 223; *supra* Part IX.A.2.

371. *See* Notice of Filing of Amendment No. 4 to Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to the Establishment of Nasdaq Order Display Facility and to Modifications of the Nasdaq Trading Platform, Exchange Act Release No. 42,573, 71 S.E.C. Docket (CCH) 2214 (Mar. 23, 2000), *available at* 2000 WL 354359, at *22 (S.E.C.) [hereinafter Amendment No. 4 Proposal].

372. *See id.*

373. *Id.*

374. *See* Smith Letter, *supra* note 275. All of the comment letters on the SuperMontage proposal cited herein are available on the SEC's website. The website has an index of selected SRO Rulemaking filings. *See* Index of Selected SRO Rulemaking Filings, *at* http://www.sec.gov/rules/sro.shtml (last visited Mar. 19, 2001). The index, which organizes the filings in reverse chronological order, has a notation for many of the filings, including the SuperMontage proposal, that "*Comments received electronically are available for this notice*," and a link to the comment letters. *Id.*

375. *See* Oddie Letter, *supra* note 275; *see also* text accompanying note 362.

376. *See* Notice of Filing of Amendment Nos. 5, 6 and 7 to Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to the Establishment of Nasdaq Order Display Facility and to Modifications of the Nasdaq Trading Platform, Exchange Act Release No. 34-43,138, 72 S.E.C. Docket (CCH) 2750 (Aug. 10, 2000), *available at* 2000 WL 1133152, at *30 (S.E.C.).

However, this proposal was dependent upon the ECNs developing the technological ability to reflect access fees in their quotes.[377] It did not satisfy the ECNs, who noted that their access fees were less than one cent per share, and were instituted on a sliding scale based on a subscriber's volume in the system.[378] In Amendment No. 7, Nasdaq, while rejecting these arguments, offered to allow ECNs, on an order-by-order basis, to indicate whether the price improvement offered by the order exceeds the access fee. For example, an ECN order to buy at $20.005 would receive the same priority as a market maker quote at $20 if the ECN charged an access fee of $.005 with regard to that order.[379]

Nasdaq proposed to further amend the portion of the SuperMontage proposal relating to the order execution algorithm with the eighth amendment to the SuperMontage proposal, which was the last major amendment.[380] As modified by Amendment No. 8, the system will allow parties placing non-directed orders to exempt their orders from the usual order execution algorithm used by the system. The usual algorithm, though it distinguishes between market participants in some ways, within a particular tier of market participants at a particular price level calls for execution based on strict price/time priority.[381] The proposal provides for three options for parties placing non-directed orders. Under either of the first two options, the order will be exposed to the following three tiers within the market, at a particular price level, in order of priority: (i) quotes or orders of market makers and ECNs, and UTP agency orders; (ii) reserve size of market makers and ECNs; and (iii) principal quotes of UTP exchanges.[382] The first option will be the "default option," to be used if neither of the other two options are specified.[383] Under the first option, within each tier of the market, orders will be executed in time priority.[384] Under the second option, within a particular price level, orders will be executed within each tier based on size/time priority.[385] The purpose of this second option is to allow parties placing large orders to attempt to obtain execution of as much of the order as possible in a short period of time.

377. *Id.*

378. *Id.* at *29.

379. *Id.* at *30.

380. *See* Amendment No. 8 Proposal, *supra* note 362, at *1.

381. *See id.* at *11-12 (citing the language of proposed NASD Rule 4710(b)(1)(B)); *id.* at *43.

382. *Id.* at *43.

383. *Id.*

384. *Id.*

385. *Id.*

Under the third order execution option, the party placing the order will be allowed to give lower priority to ECNs charging separate access fees, unless the ECN's quote or order is, after adding the access fee, still equal to the best price in the market.[386] Accordingly, under this third option, within a particular price level, orders will be executed in the following priority: (i) quotes or orders of market makers, ECNs which do not charge separate access fees, ECNs whose prices are equal to the best market price after adding the access fee, and UTP agency orders, in time priority; (ii) quotes of ECNs that charge a separate access fee which, when added to the quote, makes the price inferior to the best price in the market, in time priority; (iii) reserve size of market makers, ECNs that do not charge a quote access fee, and ECNs whose quote matches the best price after adding the access fee, in time priority; (iv) reserve size of ECNs that charge an access fee which, when added to the quote, makes the price inferior to the best price in the market, in time priority; and (v) principal quotes of UTP exchanges, in time priority.[387] If an order entered into the SuperMontage System cannot be filled within the next two trading increments, or ten cents in a decimal trading environment, the system will delay five seconds to allow market makers time to update their quotes.[388]

"Directed orders," i.e., orders sent to a specific market participant, will generally have to be oversized to limit the potential for dual liability.[389] However, market participants may choose to receive liability orders from the directed order system.[390] Nasdaq anticipates

386. *Id.* at *43-44.

387. *Id.*

388. *See* Amendment No. 4 Proposal, *supra* note 371, at *20-21. Under the original SuperMontage proposal the system would have delayed five seconds each time it moved to a new price level, but commenters thought this would cause orders to back up in the system. SuperMontage Proposal, *supra* note 101, at *11-12; Amendment No. 4 Proposal, *supra* note 371, at *20. The current provisions governing the delay were introduced with the fourth amendment to the proposal. Amendment No. 4 Proposal, *supra* note 371, at *20-21.

389. *Id.* at *13. If directed orders were not oversized, they could lead to dual liability because they are not routed in accordance with the Order Execution Algorithm. For example, if a market maker was quoting a bid price of 25 (1000) and a sell order for 1,000 shares was directed to it at the same time an order was automatically executed against its bid through operation of the Order Execution Algorithm, the market maker would be obligated to purchase 2,000 shares despite only quoting a bid size of 1,000.

390. This option was provided with the seventh amendment to the proposal, in response to comments from ECNs who were concerned that their customers have an efficient way to direct orders to them. *See* Notice of Filing of Amendment Nos. 5, 6 and 7 to Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to the Establishment of Nasdaq Order Display Facility and to Modifications of the Nasdaq Trading Platform, Exchange Act Release No. 43,138 (Aug. 10, 2000), *available at* 2000 WL 1133152, at *30 (S.E.C.) [hereinafter Amendment Nos. 5, 6 and 7 Proposal].

that the quotation montage will be used as a means of negotiation for market makers.[391] If a market maker receives a directed order that it wants to fill, it can cancel its displayed order to avoid double execution.[392] The SuperMontage System will also allow "preferenced orders," which will be automatically executed but which will not be subject to the above order execution algorithms.[393] Preferenced orders will be considered liability orders and will be processed with non-directed orders.[394] The party placing a preferenced order also will designate the market participant to whom the order would be delivered.[395] A preferenced order will only be executed if the participant to whom it was preferenced is quoting the NBBO.[396] If the party to whom the order was preferenced was not at the NBBO, the order will not be executed.[397]

6. Reaction of ECNs

The Commission received a large number of comments on the SuperMontage proposal. In proposing the fourth amendment to the proposal, Nasdaq expressed the overly sanguine view that "the overwhelming majority of . . . comments were extremely positive."[398] It also stated, in a significant understatement, that "[a] few commenters opposed the proposal in its entirety."[399] Comments from the ECNs, who are the major competitors of Nasdaq after the NYSE, were highly critical. Bloomberg L.P., which operates an ECN through its Bloomberg Tradebook LLC subsidiary, accused Nasdaq of abusing its regulatory power to establish a monopoly in connection with its plan to become a for-profit entity.[400] In addition, Nasdaq's required statement

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391. *Id.* The negotiation process would be an alternative to the automatic execution process described above. *See supra* Part VII.A.1 (discussing development of automatic execution systems).

392. Amendment Nos. 5, 6 and 7 Proposal, *supra* note 390, at *30.

393. *Id.* at 46. Preferenced orders will differ from directed orders because preferenced orders will be subject to automatic execution. *Id.*

394. *Id.*

395. *Id.*

396. *Id.* at *46.

397. *Id.* Amendment No. 8 had another alternative for preferenced orders under which these orders would be executed at the quote price of the market participant to whom it was preferenced, regardless of whether this market participant was at the NBBO. *Id.* This alternative was withdrawn with the ninth and last amendment to the SuperMontage proposal. *See* SuperMontage Adopting Release, *supra* note 36, at *1 n.14.

398. Amendment No. 4 Proposal, *supra* note 371, at *19.

399. *Id.*

400. Letter from Kevin M. Foley, Bloomberg L.P., to S.E.C. (Jan. 11, 2000) (on file with author) [hereinafter Bloomberg Letter].

regarding the effect of the proposal on competition was as follows: "Nasdaq does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the [Exchange Act]."[401] This conclusory statement angered the ECNs, whose existence was threatened by the proposal.[402] Though Nasdaq responded to many of the ECNs comments by amending the SuperMontage proposal, even in its final form it was strongly opposed by the ECNs.[403]

VIII. FLAWS IN THE MARKETS AND SELF-REGULATORY STRUCTURE

The current self-regulatory structure for the nation's securities markets has serious flaws, which have been exacerbated by Nasdaq's growth, the increasing competition between Nasdaq and the NYSE, and the emergence of ECNs. In the last five years disciplinary actions brought by the SEC against both the NASD and the NYSE have illustrated the dangers posed by the current system. In addition, a market manipulation case fostered by trading on ECNs highlights the SEC's concerns regarding the surveillance of trading on ECNs.

A. Nasdaq

Beginning in 1994, the Commission conducted an investigation into trading on Nasdaq that was prompted in large part by a well-publicized study that questioned the unusual quoting practices of Nasdaq market makers.[404] The investigation, which concluded in 1996, uncovered serious problems with the operation of Nasdaq and also illustrated some of the deficiencies in the self-regulatory system. On August 8, 1996, the Commission instituted an enforcement action against the NASD.[405] In addition, the Commission issued a "Section 21(a)" report detailing the problems both with the Nasdaq market and with the NASD's supervision of the market.[406]

401. Amendment No. 4 Proposal, *supra* note 371, at *25.

402. Letter from Professional Investment Management, Inc., to S.E.C. (undated) (on file with author).

403. *See, e.g.*, Letter from Instinet Corporation, to S.E.C. (Dec. 6, 2000) (on file with author); Letter from Island ECN, Inc., to S.E.C. (Dec. 6, 2000) (on file with author).

404. *See* William G. Christie & Paul H. Schultz, *Why Do Nasdaq Market Makers Avoid Odd-Eighth Quotes?*, 49 J. FIN. 1813 (1994).

405. *In re* National Association of Securities Dealers, Inc. Exchange Act Release No. 37,538, 62 S.E.C. Docket (CCH) 1346 (Aug. 8, 1996), *available at* 1996 WL 447193 (S.E.C.) [hereinafter National Association of Securities Dealers].

406. *See* Section 21(a) Report, *supra* note 2. A "Section 21(a)" report is issued pursuant to Section 21(a) of the Exchange Act, which grants the Commission the authority to issue a report detailing findings of violations of the securities laws in lieu of an enforcement action. *See* 15

One of the more serious violations uncovered by the SEC in its investigation, as detailed in the report, was a "pricing convention" under which market makers in Nasdaq securities quoted stocks only in even-eighth prices.[407] The Section 21(a) report also detailed instances in which certain market makers colluded with other market makers to display quotations at prices at which they did not intend to trade.[408] In addition, the Commission found that market makers frequently failed to honor their price quotations and consistently reported their trades late to Nasdaq.[409] Finally, the SEC found that the NASD had failed to properly carry out its supervisory responsibilities by ignoring substantial evidence of wrongdoing on the Nasdaq market.[410]

U.S.C. § 78u(a) (1994). The Commission has used its authority under Section 21(a) only on rare occasions, typically where unusual circumstances dictate that an enforcement action is not necessary. *See, e.g.*, Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934 Concerning the Conduct of Certain Former Officers and Directors of W.R. Grace & Co., Exchange Act Release No. 39,157, 65 S.E.C. Docket (CCH) 1240 (Sept. 30, 1997), *available at* 1997 WL 597984 (S.E.C.); Report of Investigation in the Matter of County of Orange, California as it Relates to the Conduct of the Members of the Board of Supervisors, Exchange Act Release No. 36,761, 61 S.E.C. Docket (CCH) 382 (Jan. 24, 1996), *available at* 1996 WL 26755 (S.E.C.); Report of Investigation in the Matter of Cooper Companies, Inc. as it Relates to the Conduct of Cooper's Board of Directors, Exchange Act Release No. 35,082, 58 S.E.C. Docket (CCH) 591 (Dec. 12, 1994), *available at* 1994 WL 707149 (S.E.C.). In the NASD's case, however, the Section 21(a) Report supplemented an enforcement action.

407. Section 21(a) Report, *supra* note 2, at *4. Under the pricing convention, market makers quoted bid and offer prices only at increments of ¼, ½ or ¾ and not in "odd-eighths," such as ⅛, ⅜ or ⅝. *Id.* The pricing convention explained the practice of market makers avoiding odd-eighth quotes originally noted in the Christie-Schultz Study. *Id.* at *26 n.26. Quoting stocks in odd-eighths was known as making a "Chinese Market." *Id.* at *37 n.42. Traders making a Chinese Market were subject to angry telephone calls and other harassment and other market markers sometimes refused to trade with them. *Id.* at *67. As a result of the pricing convention, spreads on Nasdaq stocks remained artificially wide. *Id.*

408. For example, in one notable instance, a market maker bid 18¼ for a stock, at which point another market maker, which had a customer sell order, called the first market maker to request that it lower its bid so that the second market maker could purchase stock from its customer at a lower price. *Id.* at *53. The following is an excerpt from the taped conversation between traders for the two market makers:

> [Market Maker 2:] I just seen [sic] you go ¼ bid. Without like going through a whole bunch of, you know. . . . I know I got a bunch of these for sale at the opening. I would rather buy them at 18, if you know what I'm saying. If there's a ticket to write, I will write it with you [meaning I will sell some [of the stock in question] to you if you are looking to buy some].

Id. at *53. Under basic principles of best execution, Market Maker 2 could not have purchased stock from a customer at 18 when Market Maker 1, the other party to the conversation, was bidding 18¼. *See supra* Part V.A (describing a market maker's duty of best execution). In response to the above request by Market Maker 2, Market Maker 1 dropped its bid to 18, and Market Maker 2 bought 8,000 shares from its customer at 18. Section 21(a) Report, *supra* note 2, at *53. Market Maker 2 later sold 6,500 shares to Market Maker 1 at 18¼. *Id.*

409. Section 21(a) Report, *supra* note 2, at *5.

410. For instance, in August 1989, the NASD became aware of a letter sent by the NYSE to a

The primary purpose of the SEC's administrative proceedings against the NASD, which did not impose any fine upon the organization, was to require the NASD to comply with certain "undertakings" relating to its composition and surveillance and enforcement functions.[411]

B. New York Stock Exchange

In June 1999, the Commission instituted an administrative proceeding against the NYSE based on alleged supervisory failures in connection with illegal conduct by independent floor brokers on the exchange.[412] The alleged illegal conduct consisted of independent floor brokers' trading for their own accounts, or sharing in others' trading profits, which was considered the equivalent of trading for their own account.[413] The allegedly illegal conduct resulted in an indictment and a Commission enforcement action against numerous independent floor

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Nasdaq-listed company in which the NYSE alleged that Nasdaq spreads were wider than NYSE spreads. *Id.* at *67. In June 1990, the letter was discussed at a meeting of the NASD's Trading Committee. *Id.* In early 1992, a senior NASD official prepared a memorandum where he detailed the practice of market makers avoiding odd-eighth quotes. *Id.* at *69-70. This memorandum was distributed to members of the NASD's executive management. *Id.* at *70. In addition, the Commission found that the NASD ignored several other warning signs of these serious problems in the Nasdaq market. *Id.* The Commission also found that the NASD was far more concerned with combating the SOES firms than it was with policing market makers on Nasdaq, and that it did not aggressively enforce the Firm Quote rule. *See id.* at *78-81.

Long before the SEC's investigation concluded, the NASD undertook a study of its structure. *Id.* at *22-25. The "NASD Select Committee on Structure and Governance," which was known less formally as the "Rudman Committee" after its Chairman, former United States Senator Warren Rudman, conducted the study. *Id.* at *22. One of the primary recommendations of the Rudman Committee was that the NASD reorganize so that Nasdaq and the regulatory branch of the NASD were separate subsidiaries and that both the NASD and each of the two subsidiaries have at least fifty percent public representation on their boards of governors or directors. *Id.* at *23. The NASD instituted these recommendations along with most of the other recommendations of the Rudman Committee. *Id.* at *23-24.

411. The NASD agreed to, among other things:

- implement and maintain at least 50% independent public and non-industry membership on its board of governors and the board of governors or directors of each of its subsidiaries and affiliates;
- provide for the autonomy and independence of the regulatory staff of NASDR;
- ensure that the organization has a substantial and independent internal audit staff;
- improve its surveillance and examination of order handling and trade reporting; and
- propose a rule interpretation prohibiting collusion among market makers.

National Association of Securities Dealers, *supra* note 405, at *3-5.

412. *In re* New York Stock Exchange, Inc., Exchange Act Release No. 41,574, 70 S.E.C. Docket (CCH) 106 (June 29, 1999), *available at* 1999 WL 430863 (S.E.C.) [hereinafter *In re* New York Stock Exchange].

413. *Id.* at *3. With some limited exceptions, Commission and NYSE rules prohibit exchange members from trading for their own account while on the floor of the exchange. 17 C.F.R. § 240.11a-1 (2000); NYSE Rules 90, 95 and 111 (1998), N.Y.S.E. Guide, *supra* note 59, ¶¶ 2090, 2095, 2111.

brokers and broker-dealers.[414] At the time of the Commission enforcement action against the NYSE, the charges against the independent floor brokers and broker-dealers had not been resolved, and the government's case later encountered some difficulties.[415] However, the Commission enforcement action focused on the conduct of the NYSE.

The Commission found that the NYSE failed to diligently carry out its self-regulatory responsibilities in connection with the floor brokers' alleged violations, in violation of Section 19(g) of the Exchange Act. Specifically, the Commission found that the NYSE failed to diligently seek information on the receipt of performance-based compensation by independent floor brokers, a violation of Commission and NYSE rules. In addition, the Commission found that the NYSE, without reasonable justification, suspended its surveillance of floor brokers for extended periods of time.[416] Like the enforcement action against the NASD, the Commission's enforcement action against the NYSE did not impose a fine, but required the NYSE to comply with various undertakings relating to its market surveillance and its education of members and their representatives.[417]

414. *In re* New York Stock Exchange, *supra* note 412, at *3.

415. The Commission order contained the unusual statement that the Office of the United States Attorney, "following consultation with the SEC and the NYSE, has stated that, as of April 30, 1999, there was probable cause to believe that 64 Independent Floor Brokers prior to February 1998 had effected transactions on the NYSE floor for accounts as to which those floor brokers received a share of the profits." *Id.* at *3. The later difficulties stemmed, in part, from the disclosure that the NYSE had taken the position that in some situations, independent floor brokers were allowed to share in profits from their trading. Greg Ip, *New Issues Arise in NYSE Trading Controversy*, WALL ST. J., Feb. 20, 2001, at C1, *available at* 2001 WL 2854688.

416. *In re* New York Stock Exchange, *supra* note 412, at *6. For example, the NYSE suspended this surveillance from approximately August 1995 through December 1997. *Id.*

417. The undertakings included, among others, the NYSE's agreeing to:

- improve its regulation of independent floor brokers, specialist, and other exchange members by, among other things, engaging in continuous surveillance of all members on the floor of the exchange, ensuring that members of the exchange's regulatory staff are present on the floor at all times during trading hours, and increasing its enforcement staff;
- form an independent committee of the exchange's board of directors to draft comprehensive procedures manuals detailing the objectives of the NYSE's surveillance program governing members on the floor of the exchange;
- design and implement a mandatory education program for members on the floor of the exchange; and
- continue the development of an electronic audit trail system.

Id. at *7-10.

C. ECNs

Although no major disciplinary action has been brought against an ECN, the Commission, in adopting Regulation ATS, expressed the view that adequate market surveillance of alternative trading systems is lacking.[418] In particular, the Commission found that alternative trading systems can be used to facilitate market manipulations. In June 1998, the Commission brought an enforcement action against two brothers for taking advantage of the Display Rule to manipulate the price of several stocks by placing limit orders that changed the bid or offer prices of the stocks.[419] Though the Commission's order in the manipulation case does not mention alternative trading systems, in the adopting release for Regulation ATS the Commission stated that the manipulation was carried out through orders placed on alternative trading systems.[420] While the alleged manipulation was hardly a success,[421] the Commission apparently believed that the lack of market surveillance of alternative trading systems created a risk of a larger scheme going undetected.[422]

IX. MARKET STRUCTURE AND POTENTIAL OBSTACLES TO BEST EXECUTION

The rapid developments in electronic trading in recent years have created concern on the part of the Commission about the quality of order execution and the costs associated with trading. The Commission release announcing the proposed rescission of NYSE Rule 390 also served as a "Concept Release," under which the Commission requested comment on fundamental market issues.[423] The Commission expressed concerns with four trends that may damage the efficiency of securities markets and the ability of investors to receive best execution: market fragmentation, internalization, payment for order flow, and the costs of market transaction and quotation information. This section first examines these concerns. Next, it examines proposed solutions to the perceived obstacles to best execution, beginning with recently-enacted

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418. Reg. ATS Adopting Release, *supra* note 233, at *2.

419. *In re* Ian Fishman & Lawrence Fishman, Exchange Act Release No. 40,115, 67 S.E.C. Docket (CCH) 783 (June 24, 1998), *available at* 1998 WL 330901 (S.E.C.) [hereinafter Ian Fishman & Lawrence Fishman].

420. Reg. ATS Adopting Release, *supra* note 233, at *2 n.5.

421. The Commission found that the alleged manipulators reaped profits of only $662.50 and that they lost money on one of the five series of trades described in the Commission's order. Ian Fishman & Lawrence Fishman, *supra* note 419, at *2 n.5.

422. Reg. ATS Adopting Release, *supra* note 233, at *2, *4.

423. Concept Release, *supra* note 45, at *1-3.

Commission rules designed to improve the quality of disclosure relating to order execution. It then discusses proposals designed to combat the negative effects of market fragmentation and to ensure that fees charged for market information are fair to investors and related to the costs of generating the information.

A. Commission Concerns

1. Fragmentation

While the Commission strongly encouraged the elimination of off-board trading restrictions, it also recognizes that their elimination increased the possibility of market fragmentation, or the execution of orders on multiple market centers, as opposed to a central exchange or system.[424] The SEC believes that market fragmentation may reduce quote competition and liquidity.[425] At its most fundamental level, market fragmentation creates these concerns because orders executed in different market centers do not interact with each other.[426] Under current regulations, while markets are linked, broker-dealers are not required to route customer orders to the market displaying the best price.[427]

2. Internalization

Internalization, a broker-dealer's practice of routing orders to its own market making desk or to an affiliate for execution, increases fragmentation.[428] The Commission is concerned that internalization inhibits "quote competition," or the raising or lowering of bid and offer prices by dealers to attract orders. For example, the theory behind the Nasdaq market is that dealers who want to attract sell orders, either to fill a customer buy order or simply to increase their market making activity, will increase their bid prices. Similarly, broker-dealers are required to post limit orders to the Nasdaq system if they improve the best bid or offer.[429] However, broker-dealers are allowed to trade with their own customers, i.e., "internalize" orders, as long as they match the best price in the market. As a result, investors placing limit orders may

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424. *Id.* at *7.

425. *Id.*

426. For example, a customer limit order to sell a stock at 60¼ or better may be filled at 60¼ on one market while on another market a limit order to buy at 60½ goes unfilled. *See id.*

427. Execution Disclosure Proposing Release, *supra* note 16, at *5.

428. *Id.*

429. *See supra* Part V.C.2 (discussing the Display Rule).

help set the market price, yet not have their orders executed.[430] The fact that broker-dealers are required only to match the best price in the market is also thought to reduce opportunities for price improvement.[431]

3. Payment for Order Flow

Internalization occurs when a broker-dealer has a large base of retail customers which generate order flow. Many market makers that do not have a significant number of retail customers engage in a practice known as "payment for order flow," in which they provide compensation to another broker-dealer in exchange for the other broker-dealer's sending orders for execution. Parties are willing to pay for order flow because of the revenues they generate from executing large volumes of customer orders. Payment for order flow may take many forms other than cash. For example, a firm may offer clearing services to the party directing orders to it.[432]

The Commission solicited comment on the practice of payment for order flow in 1992 in connection with the Division of Market Regulation's Year 2000 study, which was completed in 1994. Opponents of payment for order flow argue that it can prevent customers from receiving best execution of their orders.[433] If the

430. For instance, assume that the inside bid of Cisco Systems is 25 and the inside offer is 25¼. If a customer of one broker-dealer placed a limit order to purchase 1,000 shares at 25⅛, the broker-dealer would be required to display this order, as it would represent the new best price in the market. However, if a second broker-dealer held a market sell order for 1,000 shares, it would not be required to route this order to the first broker-dealer. Instead, it could purchase the shares itself at 25⅛. The limit order of the customer of the first broker-dealer would then not be filled, which might reduce the incentive of customers to place limit orders which improve the price in the market. *See id.* A similar situation would occur where a market maker raises its bid to attract shares, but instead witnesses sell orders executed at this improved price without itself receiving order flow.

431. *See* Concept Release, *supra* note 45, at *5.

432. Rule 10b-10(d)(9) under the Exchange Act defines payment for order flow as:

> 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 to any broker or dealer, national securities exchange, registered securities association, or exchange member for execution, 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.

17 C.F.R. § 240.10b-10(d)(9) (2000).

433. Payment for Order Flow, Exchange Act Release No. 33,026, 55 S.E.C. Docket (CCH)

market to which an order is directed executes the order automatically at the NBBO,[434] the customer placing the order may be denied the opportunity for price improvement.[435] This lost opportunity results from the failure of the party executing the order to expose the order to other orders in the marketplace. This exposure could result in an execution at a price better than the NBBO. Opponents argue that brokers in control of the orders have a strong incentive to direct orders to firms that pay for order flow, rather than firms that provide the best execution.[436]

The Commission issued a rule proposal governing payment for order flow in 1993 that discussed various alternatives ranging from a complete ban to varying degrees of required disclosure. Ultimately, the Commission decided not to ban the practice completely, opting instead to require enhanced disclosure concerning the practice. Specifically, the Commission adopted Rule 11Ac1-3, which requires that certain disclosures be made to customers when a new account is opened and annually thereafter.[437]

At the same time it adopted Rule 11Ac1-3 the Commission amended Rule 10b-10, which governs customer confirmations of securities transactions, to require disclosure of payment for order flow.[438] As amended, Rule 10b-10 requires disclosure on confirmations of payment for order flow received by the broker-dealer and a statement that the source and nature of the compensation in connection with the particular

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411 (Oct. 6, 1993), *available at* 1993 WL 403286, at *5 (S.E.C.) [hereinafter Payment for Order Flow].

434. *See supra* note 223 and accompanying text (describing the NBBO).

435. Payment for Order Flow, *supra* note 433, at *5.

436. One commentator asserted that the practice violates the federal bribery statute. *See id.* at *5 n.33.

437. The following are the disclosures required by Rule 11Ac1-3:

- whether the broker-dealer receives payment for order flow;
- "a detailed description of the nature of the compensation received"; and
- a description of the broker-dealer's policies with regard to how it routes customer orders for which no specific instruction is given, including a statement regarding whether these orders can be executed at prices better than the NBBO.

17 C.F.R. § 240.11Ac1-3; *see also* Payment for Order Flow, Exchange Act Release No. 34,902, 57 S.E.C. Docket (CCH) 2315 (Oct. 27, 1994), *available at* 1994 WL 587790, at *5-7 (S.E.C.) [hereinafter Rule 11Ac1-3 Adopting Release].

438. The Commission had proposed requiring disclosure on confirmations of the amount of compensation received in connection with the specific transaction which was being confirmed, but dropped this requirement in the face of substantial opposition from broker-dealers, who claimed that quantifying the compensation in connection with particular transactions would be nearly impossible. *See* Rule 11Ac1-3 Adopting Release, *supra* note 437, at *7.

transaction will be furnished upon written request.[439] Both the new Rule 11Ac1-3 and the amendment to Rule 10b-10 apply to exchange-listed, Nasdaq National Market, SmallCap, and bulletin board securities.[440]

4. Market Data Fees

Fees for market data, which includes transaction and quotation information, are a massive source of revenue for securities markets.[441] Their magnitude has long made them a source of controversy.[442] The current controversy pits the users of the information, led by discount broker Charles Schwab, against the securities markets, led by the NYSE. Both sides have a clear economic interest.[443] The NYSE claims an ownership interest in market data and argues that it should be free to sell the information.[444] Schwab disputes this ownership claim and argues that the fees are excessive and greatly exceed the costs of gathering the information.[445] In addition, Schwab argues that the excess revenues are improperly used to fund the surveillance function of the markets.[446] Moreover, Schwab believes that the fees discriminate against online firms.[447] The NYSE claims that the expenses of gathering market data exceed its market data revenues, a claim critics believe is the result of extremely creative cost accounting.[448] In June 1999, Schwab filed a petition seeking a rule change that would, among

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439. 17 C.F.R. § 240.10b-10(a)(7)(iii); Rule 11Ac1-3 Adopting Release, *supra* note 437, at *7.

440. As originally proposed, they would have applied only to exchange-listed and Nasdaq National Market Securities. *Id.* at *4.

441. Market Data Release, *supra* note 122, at *21-23.

442. *Id.* at *11-13.

443. The exchanges received a total of about $414 million in market data fees in 1998, and Schwab, which like most brokerage firms absorbs market data costs for its customers, paid a total of about $20 million to the NYSE alone in 1998. *See* David Ignatius, *Putting a Meter on the Flow of Information*, WASH. POST, June 30, 1999, at A31, *available at* 1999 WL 17011561.

444. *See id.*

445. *See id.*; *The Consumer and Investor Access to Information Act of 1999: Hearing on H.R. 1858 Before the House Comm. on Commerce, Subcomm. on Telecomm., Trade, and Consumer Prot.*, 106th Cong. (1999) (statement of Carrie Dwyer, Executive Vice President for Corporate Oversight, Charles Schwab & Co.) [hereinafter Dwyer Testimony].

446. *See* Dwyer Testimony, *supra* note 445.

447. Under the current structure, brokers must pay either a fixed fee or a per quote charge for each online customer. *Id.* Schwab considers this discriminatory because traditional brokers can pay a fixed terminal fee regardless of the number of quotes their telephone representatives deliver. *Id.*

448. *See* Mike McNamee, *I'm Not Gonna Pay a Lot for this Stock Quote*, BUS. WK., Dec. 20, 1999, at 148, *available at* 1999 WL 27296865; Sandra Sugawara, *Market Data Fees an Online Bonanza*, WASH. POST, Dec. 8, 1999, *available at* 1999 WL 30307107.

other things, require market data fees to be tied to the costs incurred in generating these fees.[449] At the other extreme, the NYSE has repeatedly expressed its desire to dissolve the CTA and replace it with a system under which each market would provide its own data stream to vendors.[450] As a means of generating some sort of consensus on the controversial market data issue, the SEC has created an advisory committee to develop recommendations on the issue.[451]

B. Proposed Solutions

1. Disclosure of Order Routing and Execution Practices

The Commission adopted rules in November 2000 designed to improve execution practices while avoiding direct regulation of market structure. At the time the rules were adopted, the Commission remained concerned about market fragmentation's impairment of the quality of order execution, but it stopped short of mandating enhanced linkages between markets or additional regulation of routing practices.[452] The release, which will be referred to as the "Disclosure Release," adopted two new rules that together require both markets and broker-dealers to make extensive disclosures regarding order routing and execution. The Commission believes that the rules will allow brokers to make more informed comparisons among market centers when determining where to route customer orders.[453] Investors would then, in the Commission's view, be better able to evaluate the performance of their brokers in connection with order executions.[454]

New Rule 11Ac1-5, which was adopted with the Disclosure Release, requires "market centers" to make specified information available to the public on a monthly basis in electronic form.[455] The rule only applies to "National Market System" securities, which are exchange-listed and

449. Mark Hendrickson, *Schwab Petitions for Fee Revamp*, SEC. INDUS. NEWS, July 19, 1999, *available at* 1999 WL 24067131.

450. *See* Mark Hendrickson, *NYSE Still Wants out of "Unnecessary" CTA*, SEC. INDUS. NEWS, Oct. 16, 2000, *available at* 2000 WL 4050440; *see also supra* Part IV.B (discussing CTA).

451. *Seligman Focuses on Consolidation*, SEC. INDUS. NEWS, Nov. 13, 2000, *available at* 2000 WL 4050555.

452. Disclosure of Order Execution and Routing Practices, Exchange Act Release No. 43,590 (Nov. 17, 2000), *available at* 2000 WL 1721163, at *2 (S.E.C.) [hereinafter Disclosure Release].

453. *See id.* at *39.

454. *Id.* at *40.

455. "Market centers" generally include exchange specialists, market makers in OTC securities, and alternative trading systems, including ECNs. *Id.* at *13.

Nasdaq National Market securities.[456] In addition, it only applies to "covered orders," which are orders received when a national "consolidated best bid and offer" is disseminated; this would exclude market opening orders. The rule does not apply to orders such as short sales for which special handling was requested.[457]

Under Rule 11Ac1-5, information regarding, among other things, speed of execution and "average realized spread" must be included in market centers' reports for all covered orders for each security.[458] The "realized spread" for an order is defined as double the difference between the execution price of an order and the midpoint of the consolidated best bid and offer thirty minutes after the time of execution.[459]

The rule requires specified information regarding, among other things, speed of execution, degree of price improvement and "average effective spread" for market orders and marketable limit orders only.[460]

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456. *Id.* at *16.

457. *Id.* at *13-14.

458. The following is the information required for all covered orders:

- total number of covered orders;
- total number of shares for covered orders;
- total number of shares for covered orders cancelled before execution;
- total number of shares executed at the market center originally receiving the order;
- total number of shares executed at a market center other than that originally receiving the order;
- the number of shares for covered orders executed within five specified categories based on the time elapsed between receipt and execution, such as zero to nine seconds and ten to twenty-nine seconds; and
- the "average realized spread" for covered orders.

Id. at *43-47.

459. *Id.* at *43-47.

460. The following is the information required for market orders and marketable limit orders only:

- the "average effective spread" for covered orders;
- the total number of shares for covered orders executed with price improvement;
- for shares executed with price improvement, the average price improvement, weighted by number of shares;
- for shares executed with price improvement, the average time between order receipt and execution, weighted by number of shares;
- the number of shares executed at the quote;
- for shares executed at the quote, the average time from order receipt to execution, weighted by number of shares;
- the number of shares executed outside the quote;
- for shares executed outside the quote, the average amount the prices were outside the quote, weighted by number of shares; and
- for shares executed outside the quote, the average time from order receipt to execution, weighted by number of shares.

The effective spread for an order is defined as double the difference between the execution price and the midpoint of the consolidated best bid and offer at the time of order receipt.[461]

The use of the average effective spread for marketable limit orders and market orders is intended simply as a measure of the price improvement, or lack thereof, associated with these orders.[462] Stated another way, it measures the "liquidity premium" associated with placing orders that are immediately marketable.[463] The average realized spread is intended to have different significance for non-marketable and marketable orders. For non-marketable limit orders, the average realized spread is intended to measure "adverse selection" costs, or the extent to which limit orders tend to "be executed when the market is moving significantly against them."[464] The Commission believes that adverse selection costs are increased by local traders on exchange floors and OTC market makers "stepping ahead" of limit orders.[465] For market orders and marketable limit orders, the average realized spread is intended to measure the routing of "informed" and "uninformed" orders.[466] Informed orders are orders placed by parties with better information than generally available in the marketplace, and market centers are believed to have an incentive to attract uninformed orders, which are considered to have less risk.[467] A market center with a positive average realized spread would be presumed to have attracted informed orders, and a market center with a negative average realized spread would be presumed to have attracted uninformed orders.

With the Disclosure Release, the Commission also adopted Rule 11Ac1-6, which requires broker-dealers to make disclosures to customers regarding the broker-dealer's order routing practices. In addition to the exchange-listed and Nasdaq National Market securities covered by Rule 11Ac1-5, the rule applies to Nasdaq SmallCap securities and to listed options.[468] Under the rule, broker-dealers would

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Id.

461. The "quote" is the NBBO. *Id.* at *45 (citing Rule 11Ac1-5(a)(10)). Accordingly, "at the quote" means, for a buy order, at the national best offer and, for a sell order, at the national best bid. *Id.*

462. *Id.* at *20.

463. *Id.*

464. *Id.* at *19.

465. *Id.*

466. *Id.*

467. *Id.*

468. *Id.* at *23. The rule applies only to "customer orders," defined as orders not for the account of the broker-dealer that have a market value of less than $50,000, in the case of options, or $200,000, in the case of other securities. *Id.*

not be required to provide order routing disclosures with regard to orders which a customer directs to a specific market center.[469] Rule 11Ac1-6 requires broker-dealers to disseminate quarterly reports containing additional statistical information on their order routing practices.[470]

Rule 11Ac1-6 also requires a discussion of the material aspects of the broker-dealer's relationship with each of the market centers to which it has sent orders, including a description of any payment for order flow or profit-sharing arrangements.[471] The rule expands on the disclosures required by Rule 10b-10 and Rule 11Ac1-3.[472] The final disclosure required by Rule 11Ac1-6 is a discussion and analysis by the broker-dealer of its order routing practices, including the "objectives" affecting its order routing practices, the results obtained by them, a comparison of the execution quality of the market centers to which the broker-dealer routes orders to that of other market centers, and a statement as to whether the broker has made or intends to make significant changes in its order routing practices.[473]

The reports required under Rule 11Ac1-6 need not be distributed to the broker-dealer's customers, but must be made "publicly available," by posting on a web site, furnishing a written copy on request, and notifying customers at least once per year that the report will be furnished on request.[474] Under the rule, in addition to making the quarterly reports available, broker-dealers are required to furnish, upon

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469. *Id.*

470. Rule 11Ac1-6 requires broker-dealers to disseminate quarterly reports containing the following statistical information on their order routing practices:

- "non-directed orders," or customer orders which were not directed to a particular market center, as a percentage of total customer orders;
- the percentages of non-directed orders which were market orders, limit orders and "other" orders; and
- for each of the various market centers to which the broker-dealer sent non-directed orders, the percentage of non-directed orders sent to the market center, along with the percentage of non-directed market orders, non-directed limit orders, and non-directed "other" orders sent to the market center.

Id. at *47-48.

471. *Id.*

472. Rule 10b-10 requires a broker-dealer to disclose on its confirmation only that payment for order flow that was received and to furnish details upon written request, and Rule 11Ac1-3 requires broker-dealers to disclose to new customers and annually to existing customers its "policies" on payment for order flow and order routing. *See id.*; 17 C.F.R. §§ 240.10b-10(a)(2)(i)(C), 240.11Ac1-3(a) (2001); *see also supra* Part IX.A.3 (discussing payment for order flow).

473. Disclosure Release, *supra* note 452, at *47-48.

474. *Id.*

customer request, the name of the market center or centers to which the customer orders were routed in the six months preceding the request, whether the orders were directed or non-directed and, for any executed orders, the time of execution.[475] Broker-dealers also have to notify customers at least annually that this additional detail is available upon request.[476]

2. Prohibition of or Restrictions on Internalization

As noted above, it is argued that internalization reduces the incentive for customers to place limit orders and reduces opportunities for price improvement.[477] A complete ban on internalization was not one of the options discussed by the Commission in the Concept Release, and therefore seems unlikely. A less extreme alternative proposed by the NYSE at the time it sought rescission of Rule 390, however, seems to be receiving serious consideration.[478] Under the NYSE proposal, broker-dealers would be prohibited from internalizing customer orders unless they offered price improvement.[479]

3. Trade-through Rule

One of the reasons fragmentation is believed to be harmful to investors is that even if markets are linked, orders do not have to be routed to the market offering the best price.[480] A solution that has been proposed to remedy this situation is the adoption of a "trade-through" rule, under which broker-dealers executing customer orders would be required to ensure that a customer's order executed on a particular market center does not receive a price inferior to that it would have received on another market center at the same time.[481] A trade-through rule could contain an exception under which a broker-dealer's customer agrees to allow the broker-dealer to use its own judgment in achieving best execution, rather than being obligated to achieve the best price.

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475. *Id.*

476. *Id.*

477. *See supra* Part IX.A.2 (discussing internalization and its potential inhibition of quote competition).

478. *See* Concept Release, *supra* note 45, at *5.

479. *See id.* at *6.

480. *See supra* Part IX.A.1 (discussing market fragmentation).

481. Execution Disclosure Proposing Release, *supra* note 16, at *7.

4. Decimalization

From the inception of trading in the United States securities markets, prices have been quoted in fractions.[482] The U.S. markets retained this antiquated system of trading in fractions long after the other major markets in the world had begun trading stocks in decimals.[483] The move to decimal trading began only after Commission announcements, public debate, the threat of Congressional action, and some industry resistance.[484] While the NYSE initially announced that it would begin decimal trading by January 2000, industry preparations for the year 2000 delayed the transition to decimals.[485] On January 28, 2000, the Commission issued an order requiring the exchanges and other market participants to begin the transition to decimal trading, with some decimal trading to begin by July 3, 2000.[486] The Commission later extended this deadline, but on June 8, 2000, it ordered the industry to develop a phase-in plan to begin decimal trading in exchange-listed securities and options by September 5, 2000. A pilot program of decimal trading for seven stocks began on August 28, 2000, and decimal trading began with about fifty-seven NYSE stocks on September 25, 2000.[487] In accordance with the plan submitted by the industry, decimal trading for all exchange-listed securities options and Nasdaq securities was completed by April 9, 2001.[488]

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482. This is a practice stemming from the status of the Spanish dollar in the late eighteenth century as one of the more stable currencies. Editorial, *Bid Farewell to an Eighth*, CHI. TRIB., Sept. 6, 2000, at 18, *available at* 2000 WL 3705374; Paul Bomberger, *Introducing a New Way of Looking at Your Stock Prices*, INTELLIGENCER J. (Lancaster, Penn.), Aug. 22, 2000, at B6, *available at* LEXIS, News Library, Intelligencer Journal File. The Spanish dollar was physically divisible into "pieces of eight," so stocks were quoted and traded in eighths. Bomberger, *supra*. As the U.S. markets developed, most established minimum trading increments, which, if not an eighth, were another fraction. Securities and Exchange Commission, Market 2000 Report, Introduction and Executive Summary, *available at* 1994 SEC LEXIS 130, at *51-52 (Jan. 1994).

483. Order Directing the Exchanges and the National Association of Securities Dealers, Inc. to Submit a Decimalization Implementation Plan Pursuant to Section 11A(a)(3)(B) of the Securities Exchange Act of 1934, Exchange Act Release No. 42,360, 71 S.E.C. Docket (CCH) 1274 (Jan. 28, 2000), *available at* 2000 WL 91915, at *1 (S.E.C.).

484. *Id.* at *1-2.

485. *Id.* at *2.

486. Order Directing the Exchanges and the National Association of Securities Dealers, Inc. to Submit a Phase-in Plan to Implement Decimal Pricing and Equity Securities and Options, Exchange Act Release No. 42,914, 72 S.E.C. Docket (CCH) 1493 (June 8, 2000), *available at* 2000 WL 816861, at *1 (S.E.C.).

487. Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by the NYSE, Inc. Relating to Decimal Pricing, Exchange Act Release No. 43,230, 73 S.E.C. Docket (CCH) 337 (Aug. 30, 2000), *available at* 2000 WL 1238790, at *1 (S.E.C.); *NYSE to Add to Decimal Stocks Next Month*, SEC. WK., Nov. 13, 2000, at 4.

488. Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to Decimal Pricing for Listed Securities,

Decimal trading is widely expected to reduce spreads and save investors large sums of money. However, decimal trading may actually make it easier for broker-dealers to engage in a practice known as "stepping ahead" of investor limit orders, which could harm investors.[489] Early returns have indicated that traders' "stepping ahead" of orders has been a major problem for institutional investors, but that individual investors have largely benefitted from decimalization.[490]

5. Market Data Fees

In December 1999, the SEC undertook a comprehensive review of market data fees and their role in funding the operations of self-regulatory organizations ("SROs").[491] At the same time, it sought public comment on a variety of proposals designed to ensure that market information is readily available to the public and that the revenues from such data are allocated in a way that furthers the objectives of the national market system.[492] The Commission indicated that it was considering increasing its involvement in the regulation of market data fees, which were historically determined by a consensus between the SROs and the rest of the industry.[493] The Commission proposed a cost-based approach that would be a significant departure from the current system, under which revenues are generally allocated based on the SROs' percentage of transaction volume. Under the proposed approach, which is reminiscent of rate-fixing for utilities, the percentage of the SROs' share of market data revenues would be tied to the portion of their costs related to the generation of the market information.[494] The Commission has indicated that these related costs

Exchange Act Release No. 43,232, 73 S.E.C. Docket (CCH) 345 (Aug. 30, 2000), *available at* 2000 WL 1238788, at *1 (S.E.C.).

489. Walter Hamilton, *Ways to Limit the Risk of Trading in Pennies*, L.A. TIMES, July 30, 2000, at C6, *available at* LEXIS, News Library, Los Angeles Times File. In a fractional trading environment where the normal trading increment was 1/8, if the stock was trading at 20 - 20 1/4, and an investor placed a limit order to sell at 20 1/8, to prevent the sell order from interacting with a buy order, a professional trader would have to place an order at a price of 20, or 1/8 better than the customer's order. However, if the same stock were trading in a decimal environment, and the quotes were 20.00-20.50 and the investor placed a sell order at 20.25, a professional trader could "step ahead" of the order by entering a sell order at 20.24.

490. Jeff D. Updike & Gregory Zuckerman, *Decimal Move Brings Points of Contention from Traders*, WALL ST. J., Feb.12, 2001, at C1.

491. Market Data Release, *supra* note 122, at *2; *supra* Part III (describing the history of self-regulation and the structure and operations of self-regulatory organizations).

492. Market Data Release, *supra* note 122, at *28-29.

493. *Id.* at *29.

494. *Id.* at *29-30.

would not necessarily be limited to direct costs such as technological costs.[495]

X. DEBATES ON MARKET STRUCTURE AND REGULATION

Improvements in technology have fostered the development of ECNs and improvements to the NYSE's and Nasdaq's systems. As additional trading systems have developed, a long-standing debate of the merits of the two primary types of markets, agency and auction, has intensified. In addition, the debate has expanded to include the advantages and disadvantages of alternative trading systems, particularly ECNs. Moreover, the current system for regulating these systems has been called into question by the planned demutualization of the NYSE and Nasdaq. This section summarizes the debate surrounding the structure of the United States securities markets, and then discusses the planned demutualization of the NYSE and Nasdaq and its effect on self-regulation.

A. Centralized or Fragmented Market

Part of the difficulty the SEC faces in regulating the manner in which orders are executed is the uncertainty as to the structure the markets will take in coming years. The Commission has consistently expressed concerns that fragmentation may prevent investors from receiving best execution. As one possible solution to this perceived problem, the Commission has considered the creation of a central limit order book ("CLOB"). A CLOB would aggregate all orders in a single location and provide automatic executions based on price-time priority.[496] The so-called "MGM" alliance of Merrill Lynch, Goldman Sachs and Morgan Stanley Dean Witter has supported a CLOB.[497] The MGM alliance proposed a "hard CLOB," which would be mandatory for all market participants.[498] Nasdaq's SuperMontage proposal, as currently structured, would be a "soft CLOB" because it would be voluntary.[499] One of the stated advantages of a CLOB is that it would improve order

495. For example, the Commission considers market regulation costs related to the generation of market information because they improve the quality of the information. *See id.* at *35.

496. Ian Springsteel & Michelle Celarier, *The ECN Dilemma: Blasting Fragmentation, Wall Street Calls for a Centralized Market Structure that Threatens the Upstarts*, INVESTMENT DEALERS DIG., Mar. 6, 2000, *available at* 2000 WL 4666837.

497. Laura Santini, *Key Congressman Demands Details on SuperMontage*, INVESTMENT DEALERS DIG., July 3, 2000, *available at* 2000 WL 4667054.

498. Peter Chapman, *Fragmented Dealing Under Fire*, TRADERS MAG., May 1, 2000, *available at* 2000 WL 11133579.

499. *Id.*

execution, as all limit orders would interact in a central forum to provide maximum liquidity, transparency, and opportunity for price improvement. A CLOB is also thought to provide substantial cost savings because it would be a single system and would have only one self-regulator.

Opponents of a CLOB argue that it would stifle innovation in the securities markets and threaten stability of the markets because it would provide a single point of failure.[500] If a hard CLOB were implemented, it would presumably include, at the very least, all exchange-listed and Nasdaq National Market securities. If the technology supporting the CLOB failed, all trading in these securities would come to a halt. In addition, opponents of a CLOB argue that mandating executions based on price-time priority would eliminate an investor's choice in determining how an order should be executed.[501]

B. Auction or Dealer Market

Proponents of the auction market model used by the NYSE and several other exchanges argue that it produces the best execution because orders interact with each other in a central location. For example, auction markets theoretically offer more opportunities for price improvement because of the exposure of orders to the trading crowd.[502] In addition, because of the involvement of the specialist, auction markets have historically been more stable in times of extreme volatility, such as market crashes. The NYSE has long argued that the exposure of orders to the crowd results in lower spreads.[503]

The NYSE's claims of superior execution notwithstanding, observers have cited several flaws with the NYSE's model. For instance, exchange specialists earn enormous profits, primarily from trading for their own accounts, which raises questions as to whether they are helping investors or profiting at the investor's expense.[504] Much of the

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500. *Id.*

501. Springsteel & Celarier, *supra* note 496. For instance, small investors may be willing to forego the opportunity for price improvement in exchange for certainty of execution. Similarly, institutional investors seeking execution of large orders may be willing to accept a price slightly lower than the NBBO if it allows them to quickly acquire or dispose of a large block of stock.

502. NYSE MARKET STRUCTURE REPORT, *supra* note 49, at 20-22.

503. This position seems to be supported by an SEC study of Nasdaq and the NYSE. Greg Ip, *SEC Study May Hurt NASDAQ Image*, WALL ST. J., Dec. 11, 2000, at C1, *available at* 2000 WL-WS 26619587; Office of Economic Analysis, United States Securities and Exchange Commission, Report on the Comparison of Order Executions Across Equity Market Structures, *available at* http://www.sec.gov/pdf/ordrxmkt.pdf.

504. *See* John A. Byrne, *The Decline and Fall of the NYSE Empire?*, TRADERS MAG., Feb. 1, 2000, *available at* 2000 WL 11133510 (quoting one institutional investor which views specialists

specialist's profit is unquestionably tied to the risk they assume in committing their own capital to trades that increase liquidity.[505] However, the magnitude of their profits raises a question as to whether the liquidity provided by specialists is worth the costs to investors. Some observers believe that the NYSE is such a liquid market not because of the service provided by the specialists, but simply because it is where the overwhelming majority of the orders for NYSE-listed stocks are sent.[506] In addition, specialists have unique access to highly valuable information because they are the only parties who can view the order books for the stocks for which they have responsibility.[507] This access creates the opportunity for specialists to engage in proprietary trading for their own benefit at the expense of investors.[508] While specialists are generally required to engage in proprietary trading only as necessary to maintain fair and orderly markets, it would be extremely difficult to demonstrate that a specialist's proprietary trades were made for some other purpose. Critics of the exchanges also argue that a floor-based system is antiquated and that too many individuals handle orders, resulting in excessive trading costs.

Proponents of the dealer system argue that dealers provide much needed liquidity for the market, particularly in less active stocks. Critics of the dealer system assert that because investors must pay a spread in every transaction, they receive worse execution than in an

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as competitors in addition to facilitators of trading); *Smart Gamble*, U.S. BANKER, Sept. 2000, at 12, *available at* 2000 WL 17705070 (noting that NYSE specialists had an average return on equity of approximately 30% in 1999) [hereinafter *Smart Gamble*]. In 1999, an analyst estimated that the average operating margin for NYSE specialists was 55%. Carol Vinzant, *Do We Need a Stock Exchange?*, FORTUNE, Nov. 22, 1999, at 259, *available at* 1999 WL 27633093. While details are scarce on specialists' operations, one publicly-traded specialist reported that proprietary trades accounted for only 30% of its number of trades, but 75% of its revenue. *Id.*

505. When specialists buy stock to provide liquidity, they are inevitably buying in a declining market. However, they almost always can unload their purchased shares at a profit when the market reverses direction. *See* Andrew Feinberg, *Blown Away by Black Monday*, N.Y. TIMES, Dec. 20, 1987, § 6, at 39, *available at* LEXIS, News Library, New York Times File; Neil Weinberg, *The Big Board Comes Back from the Brink*, FORBES, Nov. 13, 2000, at 274, *available at* 2000 WL 25963943.

506. *See The Battle for Efficient Markets*, ECON., June 17, 2000, *available at* 2000 WL 8142447.

507. *Id.*

508. *See id.*; *Smart Gamble*, *supra* note 504. In one extreme example, on November 22, 1963, when word of President Kennedy's assassination reached the NYSE floor, causing a major market decline, some specialists sold stock rather than maintaining order in the market by buying. Feinberg, *supra* note 505, at 12. However, during the crash of 1987, a specialist firm was forced to sell its business after exhausting all of its financial resources attempting to maintain an orderly market. *Id.*

auction market.[509] Opponents of the dealer system would also assert that the intervention of a dealer in every trade results in a larger number of transactions, and attendant costs, than is needed to execute a customer order.

C. Nasdaq versus ECNs

The battle between Nasdaq and the ECNs began when ECNs flourished following the adoption of the Order Handling Rules in 1996.[510] Over the next four years, ECNs attracted thirty percent of Nasdaq's business[511] due to superior technology and their ability to provide investors with the opportunity to achieve best executions through the matching of orders on an agency basis, rather than transactions with a market maker acting as principal. In addition, ECNs, unlike Nasdaq, displayed order interest at multiple levels and not only at the best bid and offer prices. Nasdaq launched what many consider to be the death blow to the ECNs with its SuperMontage proposal in late 1999.[512] The SuperMontage proposal effectively will create a massive ECN while preserving the role of the market makers. It therefore will neutralize many of the advantages of ECNs.[513]

While Nasdaq and the ECNs clashed over several provisions of the SuperMontage proposal, the proposal undeniably improves the Nasdaq market. In one sense, Nasdaq has merely responded to competition by installing features on its trading system that have been employed by ECNs for several years. The real questions are whether Nasdaq has abused its monopoly power, whether the re-engineered Nasdaq will drive the ECNs out of business and, if so, whether this is fair. ECNs have argued that Nasdaq has operated as a government-protected monopoly for several years, and has built its strength by collecting massive fees which only it, as an SRO, is allowed to assess.[514] The ECNs have also claimed that they and other market participants have devoted significant resources to promoting the Nasdaq brand name, and

509. NYSE MARKET STRUCTURE REPORT, *supra* note 49, at 22. Once decimal trading comes to Nasdaq, spreads are expected to narrow significantly, and dealers may begin charging commissions. Laura Santini, *Nasdaq's Dealers Mull Commissions, Worrying Investors*, INVESTMENT DEALER'S DIG., Jan. 8, 2001, at 12.

510. *Supra* Part V.C.2 (discussing the Order Handling Rules).

511. Disclosure Release, *supra* note 452, at *26.

512. *Supra* Part VII.C (discussing the SuperMontage proposal).

513. For example, after the SuperMontage proposal, Nasdaq will display order interest at the best bid and offer and two price levels away.

514. *See* Bloomberg Letter *supra* note 400; Smith Letter, *supra* note 275.

that this brand name will give Nasdaq an unfair advantage when it becomes a for-profit entity.[515]

While the ECNs have succeeded in attracting much of Nasdaq's order flow, the current regulatory structure essentially preserves a role for Nasdaq because the Commission, to address fragmentation concerns, mandated that most orders for Nasdaq stocks be exposed to the Nasdaq market. Although the Order Handling Rules allowed ECNs to flourish, the Order Handling Release also amended Rule 11Ac1-1, the Firm Quote Rule, to prohibit market makers and specialists from transmitting quotes to an ECN unless the ECN provided access to its quotes through an exchange or Nasdaq.[516] In addition, if a market maker or specialist wants to transmit quotations to an ECN to comply with Rule 11Ac1-4, the Display Rule, the ECN must provide access to its quotes through an exchange or Nasdaq.[517] Moreover, under Regulation ATS, an ECN must transmit its quotes to an exchange or Nasdaq for any security in which it has had five percent of the average daily volume in four months during any six-month period.[518] As a result, ECNs are effectively forced to use Nasdaq's systems and to pay its fees.

The only way for an ECN to avoid disseminating quotes to Nasdaq or a national securities exchange is to itself become a national securities exchange.[519] Obtaining exchange registration, however, is a slow process. One of the major barriers to obtaining registration is the requirement that the exchange be able to fulfill its self-regulatory responsibilities. While an exchange can contract out its self-regulatory function to another exchange or to the NASD, this is not a viable option given the intense competition between the ECNs, the exchanges, and Nasdaq, which is still majority-owned by the NASD.

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515. *See* Letter from Douglas M. Atkin, President, Instinet Corporation, to S.E.C. (Dec. 6, 2000), *available at* http://www.instinet.com/news/comment_letters/comm_letters.shtml.

516. *See* 17 C.F.R. § 242.11Ac1-1(c) (2000); Order Handling Release, *supra* note 79, at *2; *supra* Part V.C.1 (discussing amendment to Firm Quote Rule).

517. *See* 17 C.F.R. § 240.11Ac1-4(c); *see also supra* Part V.C.2 (discussing the Display Rule).

518. *See* 17 C.F.R. § 242.301(b)(3); *see also supra* Part VI.C (discussing Regulation ATS).

519. Two of the major ECNs have taken steps to become exchanges. Archipelago merged with the Pacific Exchange, and Island has applied to become registered as a national securities exchange. Alex Berenson, *Big Board Tries to Move the Battle Lines in its Fight with Nadsaq*, N.Y. TIMES, Dec. 9, 2000, at C1, *available at* 2000 WL 32000148; John Sandman, *Archipelago Set to Certify FIX for Trading Partners*, SEC. INDUS. NEWS, Nov. 13, 2000, *available at* 2000 WL 4050536.

D. *For-Profit Exchanges and Conflicts With Roles as Self-Regulators*

Within the space of a few weeks in the summer of 1999, both Nasdaq and the NYSE announced potential plans for public offerings which would make them for-profit entities. In the summer of 2000, the NASD sold about forty percent of Nasdaq to investors in a private placement of securities.[520] The purposes of changing from a mutual to a stock form of ownership, or "demutualization," is to streamline the decision making process and to raise capital more easily. As the SEC quickly recognized, however, it also raises serious questions concerning the self-regulatory role of the markets. In July 1999, the SEC issued a warning to both markets, in the form of a letter from Chairman Levitt, stating that they would need to be careful not to allow their for-profit status to interfere with a strong self-regulatory function.[521] The rise of ECNs raises concerns about the current self-regulatory structure because the ECNs are regulated by an affiliate of a competitor.[522] The proposed demutualization of Nasdaq and the NYSE ignited a debate on the form of self-regulation for the U.S. securities markets.[523]

XI. RECOMMENDATIONS

The SEC must make several critical decisions in the months and years ahead regarding the structure and the regulation of the U.S. securities markets. Due in large part to the way in which Nasdaq evolved from a simple quotation system operated by the NASD to a massive securities market, these issues are intertwined.[524] In addition, both Nasdaq and the NYSE are seeking to change their form of ownership to become for-profit entities. The Commission faces the

520. *See* Press Release, Nasdaq, Nasdaq Completes the First Phase of its Private Placement, 40 Percent of Nasdaq Sold to Over 2,800 Investors, Over $330 Million Raised (June 28, 2000), *available at* http://www.nasdaq.com/reference/sn_completes_1stphase_000628.stm. The NASD completed a second private placement of shares in Nasdaq in January 2001 which reduced its percentage ownership to about 41%. SuperMontage Adopting Release, *supra* note 36, at *11; Press Release, Nasdaq Completes Private Offering and Expands Board (Jan. 25, 2001), *available at* http://www.nasdaq.com/about/pr_private_offering_012501.stm.

521. Thomas S. Mulligan, *Market Savvy Levitt Warns NYSE, NASD to Maintain Oversight Integrity*, L.A. TIMES, July 27, 1999, at C4, *available at* 1999 WL 2180830.

522. The NASD has committed to divest itself of its remaining shares of Nasdaq, but this could be as late as June 30, 2002. SuperMontage Adopting Release, *supra* note 36, at *12.

523. For a more complete discussion of the self-regulation problem, including a summary of the advantages of six different regulatory models, see *A White Paper Prepared by the SIA entitled Reinventing Self-Regulation*, *available at* http://www.sia.com/demutualization/pdf/selfreg.pdf (last visited Mar. 19, 2001).

524. *See supra* notes 31-38 and accompanying text (tracing Nasdaq's evolution). For example, NASDR, a sister company of Nasdaq, regulates Nasdaq's competitors, the ECNs.

unenviable task of allowing vigorous competition in the securities markets while still preserving a strong regulatory structure.

A. Market Structure

The SEC should resist the temptation to involve itself too deeply in the debate on market structure. In particular, it should refrain from mandating, or even encouraging, the development of a CLOB.[525] While the idea is conceptually appealing, over the long-term it would impose a severe cost on the national markets in the form of stifled innovation. A single CLOB, run by a single entity, would have no incentive to develop new technology or methods of trading. True innovations can only result from competition. For example, in promulgating the SuperMontage proposal, Nasdaq acknowledged that it was prompted by the rise of ECNs.[526] It is unlikely that the proposal, which will improve the efficiency of Nasdaq, would have been made, or made as quickly, if not for the presence of ECNs.

For the same reasons that it should not sanction the creation of a CLOB, the Commission should not let fragmentation concerns lead to a central market of any type.[527] Some commentators would argue that concerns regarding fragmentation are misplaced in the first place.[528] Viewed from a different angle, fragmentation can be called competition. Competition between the exchanges, Nasdaq, and the ECNs will ultimately strengthen the markets and improve order executions. Excessive fragmentation, which might indeed be harmful, is unlikely to occur because all of the existing ECNs will not be able to survive after implementation of the SuperMontage proposal.[529] The costs of fragmentation are more obvious and readily measurable than the costs of centralization, but the costs of centralization are potentially greater. Any type of central marketplace would be in effect a government-protected monopoly, with little incentive to innovate or improve order executions.

Upon adoption of Nasdaq's SuperMontage proposal, former SEC Chairman Arthur Levitt, the longest-serving chairman in the SEC's history, stated that during his tenure as chairman there had been "no

525. *See supra* Part X.A (discussing CLOBs).

526. *See supra* Parts VII.C (discussing the SuperMontage proposal), VI.D (discussing the growth of ECNs).

527. *See supra* Part IX.A.1 (discussing fragmentation).

528. *See* Mark Klock, *The SEC's New Regulation ATS: Placing the Myth of Market Fragmentation Ahead of Economic Theory and Evidence*, 51 FLA. L. REV. 753 (1999).

529. *See supra* Part VII.C (discussing the SuperMontage proposal).

more time-consuming, controversial or divisive" proposed rule change than SuperMontage.[530] The SuperMontage regulatory debacle occurred largely because the Commission, in an effort to combat market fragmentation, has mandated that ECNs expose their orders to the public using a competitor's systems.[531] Providing true competition among securities markets, while limiting the negative effects of fragmentation, would be a relatively simple matter from a regulatory perspective. The Commission must mandate that ECNs and other alternative trading systems have fair access to the primary components of the national market system—the CTA, CQS and ITS.[532]

There is no logical reason that ECNs should be excluded from the facilities of the national market system, and, at least with respect to the CQS, the Commission has emphasized its commitment to the inclusion of ECN quotes in the system.[533] However, the current system for linking ECNs to the ITS, through Nasdaq, is intolerable because it requires ECNs to depend on Nasdaq technology and requires ECNs to maintain two-sided quotes, which is inconsistent with the fundamental nature of their marketplaces.[534] Moreover, Regulation ATS has effectively mandated ECN participation in the national market system but imposed barriers to their access to the system by requiring that quotes be disseminated through the exchanges or Nasdaq.[535]

The barriers to ECN participation in the facilities of the national market system are artificial and unnecessary. In large part they stem from the archaic system under which competitors must create an association or other organization and then agree upon a joint plan governing system operations. Even getting competitors to formulate a plan has usually involved years of delays, squabbling and Commission prodding.[536] An overhaul of all of these national market facilities is

530. Opening Statement on NASD's Proposed SuperMontage and Streamlining the SEC Review Process for SRO Filings by Chairman Arthur Levitt (Jan. 10, 2001), *available at* 2001 WL 47348 (S.E.C.); *see also supra* Part VII.C (describing numerous modifications to SuperMontage system designed to address issues created by ECNs' participation in the system).

531. Much of the acrimony surrounding the rule change was also due to the NASD's regulating the ECNs, Nasdaq's competitors, while also owning Nasdaq. This problem is addressed in *infra* Part XI.C, which recommends the creation of a single SRO for the securities industry.

532. *See supra* Parts IV.B, IV.F (describing the CTA, CQS and ITS).

533. Execution Disclosure Proposing Release, *supra* note 16, at *27-28.

534. *See supra* Part VI.D (discussing ECN access to ITS through Nasdaq).

535. *See supra* Part VI.C.3 (discussing requirements of Regulation ATS relating to order display and execution).

536. *See, e.g.*, *supra* note 122 (describing approval of CTA Plan); *supra* notes 174-80 and accompanying text (describing development of joint industry plan for granting unlisted trading privileges); *supra* notes 183-85 and accompanying text (describing development of ITS).

needed. Rather than continuing to seek industry consensus on the operations of these facilities, the Commission should provide for the creation of one or more for-profit organizations to take over their operations. The Commission could then mandate that exchanges and ECNs participate in these facilities by disseminating quotes and allowing executions through them.[537] The organizations operating the national market facilities would establish the rules governing their operations, subject to Commission oversight.[538] Organizations proposing to operate the facilities could bid on a contract to provide the necessary equipment and services to be awarded by the Commission or, if a single SRO is created, the SRO.[539] The organizations would be regulated, but would not be SROs, and the Commission could require that their rules provide for fair access to their systems. Such a system would allow all market centers with volume above the Regulation ATS thresholds to be part of the national market system, which would alleviate fragmentation concerns but allow vigorous and fair competition between markets.

Other than improving the linkages between the markets, the Commission does not need to take any further action toward the development of a national market system. The Commission does not need to implement any regulations addressing fragmentation because, with the Disclosure Release, the Commission has already taken steps that will lessen undesirable side effects of fragmentation by allowing investors to make a more meaningful comparison between markets on the basis of quality of order execution.[540] Accordingly, the pieces are already in place to allow the forces of competition to determine the most preferable structure. Given the adoption of the Disclosure Release,[541] even a trade-through rule is not necessary.[542] If such a rule were passed, it would need to have an exception to allow brokers to exercise judgment in determining best execution, with their customers' consent.

537. In the case of ECNs, this mandatory participation should be limited to those securities that are subject to the order execution and access requirements of Regulation ATS.

538. While there would undoubtedly be some controversy involved in the rule filings of such organizations, the markets would be limited to expressing their comments to the Commission, which would be the final arbiter of the fairness and effectiveness of the rules. This would be a major improvement over the current system under which amendments to the plans require unanimous consent of all plan participants.

539. *See infra* Part XI.C (recommending creation of a single SRO).

540. *See supra* Part IX.B.1 (describing the Disclosure Release).

541. *See supra* Part IX.B.1.

542. *See supra* Part IX.B.3 (describing a trade-through rule).

Without a single central marketplace, the U.S. market system will probably evolve to a point where, on a national level, the NYSE, Nasdaq, and one or two ECNs could compete for order flow. Each market will be able to trade stocks listed on other markets. All of the markets will be either linked under a more reliable version of the ITS or will be accessible through systems operated by broker-dealers.[543] Under such a system, investors will choose the markets that offer the most reliable and least expensive execution. Competition will force these markets to improve their systems and develop new systems. Debates have raged for years on market structure issues such as whether an auction market or dealer market is preferable[544] and whether electronic exchanges will replace floor-based exchanges. If direct regulation of market structure is avoided, the forces of competition, rather than the SEC, will determine which type of market is most efficient.

B. Market Data Fees

The SEC's well-intentioned proposal to impose a "flexible, cost-based" system for regulating market data fees would introduce confusion and more intensive oversight into a highly regulated industry.[545] Worse, it is unclear whether the system would even solve the deficiencies in the current system for transmitting market data. In an era where even industries traditionally subject to rate-fixing are moving towards deregulation, installing the Commission as the regulator of market fees would be unnecessary and unwise.

Direct Commission involvement in ratemaking would be unworkable. The debate over whether to include market regulation costs, which is the most controversial aspect of the computation, illustrates the impracticality of direct ratemaking. The Commission seems to believe that it would be appropriate under a cost-based system to include market regulation costs in market data fees. The theory behind this cost allocation is that market regulation reduces the likelihood of manipulation or fraud, so that quote or transaction information is reliable or, in the words of the SEC, not "tainted by manipulation or

543. *See supra* Part IV.F (discussing the ITS). Some commentators have argued that the ITS or similar linkages are no longer necessary because broker-dealers either have or are developing systems which link to each of the markets and allow the broker-dealers to immediately access the market with the best quote. Alex Berenson, *A Nasdaq Plan to Trade Big Board Stocks*, N.Y. TIMES, June 13, 2000, at C12, *available at* LEXIS, News Library, New York Times File.

544. *See supra* Part X.B (discussing the debate on auction versus dealer markets).

545. *See supra* Part IX.B.5 (discussing the SEC's proposal regarding market data fees).

fraud."[546] The statement illustrates the strained reasoning that is prevalent in the market data fee debate. The direct benefit of market regulation is the improvement in the quality of the markets themselves; the fact that the resulting information is "untainted" is merely a side benefit. Moreover, even if one accepts the argument that the costs of market regulation directly enhance the value of market information, as the Commission concedes in the Market Data Release, these costs should not be borne solely by the users of market data.[547]

The tenuous connection between the costs of market regulation and market data supports one radical alternative in connection with market data fees: eliminating them altogether. This alternative would involve a direct refutation of the markets' claims that they "own" market data. The proposition that the markets own the data is not as clear, either legally or logically, as the markets would suggest. Eliminating market data fees would have the inevitable result of raising transaction, membership and listing fees, the other major sources of the markets' revenues. Yet this would be a benefit, as the costs of effecting a transaction on an exchange would be more directly reflected in its fees. Under the current system, market data fees reduce transaction costs but make it more difficult for investors to compare the true cost of using a particular market. The disadvantages of eliminating market data fees would be that, while logical, it would also be anticompetitive and would likely precipitate an extended battle between the Commission and the exchanges.[548]

At the other extreme, the Commission could allow markets to set their prices for market data without the need for a consensus among all markets. This alternative would seem to undermine the movement toward a national market system by restricting access to transaction and quotation information. However, another aspect of the national market system will prevent this limitation on access to market data from occurring. Trading of securities away from their primary market has slowly increased. While ECNs have long traded Nasdaq stocks and have begun trading NYSE stocks, because the ECNs are not exchanges,

546. Market Data Release, *supra* note 122, at *35.

547. *See id.* at *27 (stating that the Commission "preliminarily believes" that "an appropriate percentage" of market regulation costs should be funded by market data fees).

548. The Commission takes the position that any ownership interest the exchanges may have in market data is subordinated to the Congressional mandate for the development of a national market system, of which widely-distributed market information is a critical part. *See id.* at *15-16. However, if the Commission completely eliminated market data fees, the exchanges might pursue a claim that this action constituted a taking of their property without just compensation in violation of the Fifth Amendment to the United States Constitution. *See id.* at *13.

they are still hampered by their dependence on Nasdaq's technology and the competitive disadvantage of regulation by Nasdaq's parent, the NASD. As discussed above, the best means of eliminating the technological barriers to competition among market centers is to allow ECNs to access the facilities of the market system.[549] Once the ECNs have more freedom to trade both Nasdaq and exchange-listed securities, they will become true competitors to the established exchanges. Once this system is in place, market data fees can be completely deregulated because this competition will provide a check on a market charging access fees that are so high as to effectively deny access to quotes.

A workable system for consolidating market information without regulating its costs would allow each market to negotiate its own fees with the users of market information. A central processor, preferably chosen by competitive bidding, would perform the consolidation function, with the costs being passed through this processor but negotiated directly between the exchanges on one side and broker-dealers and large investors on the other. If this system is not instituted until the ECNs are free to participate in the national market system, competitive factors will determine the appropriate amount of fees.[550]

C. Self-Regulation

A system in which several securities markets co-exist, whether the markets resemble current exchanges, ECNs or Nasdaq, will provide the most long-term benefits to investors. The Commission is understandably concerned, however, about the regulation of these numerous markets. The most practical solution for the self-regulation of exchanges is the creation of a single regulator that has no corporate affiliation whatsoever with any exchange. The NASD could fulfill this function, with separate divisions regulating both the markets and broker-dealers. The exchanges and ECNs could retain rulemaking authority, subject to SEC oversight.

Given the manner in which the various securities markets have evolved, the current self-regulatory structure poses several problems.

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549. *See supra* Part IX.A (proposing improvements to current structure of U.S. securities markets). An alternative approach would be to reduce the regulatory barriers to ECNs becoming exchanges. This reduction could occur through the creation of a single self-regulator, which would eliminate the need for each market to maintain its own regulatory staff. *See infra* Part XI.C (proposing creation of a single SRO).

550. For example, the NYSE may charge larger fees because it has a larger share of volume and promotes itself as the fairest and most stable market. However, if these fees are unreasonably high, market participants will direct their business in NYSE-listed stocks to other markets as a means of reducing or avoiding these fees.

One major problem is that the NASD owns one securities market while regulating the competitors of this market.[551] These competitors, the ECNs, consider this grossly unfair. On the other hand, some commentators believe that the ECNs have a "free-ride" on both the exchanges and Nasdaq by not paying their fair share of the cost of regulatory oversight.[552]

The demutualization of the securities markets will only magnify current deficiencies in the self-regulatory structure.[553] Allowing for-profit exchanges to continue to act as self-regulators would pose significant dangers to the integrity of the markets. Self-regulation always involves an inherent conflict, as the enforcement actions against the NYSE and NASD illustrate.[554] The best argument for allowing market centers to continue to regulate themselves is that they will have even stronger incentives to preserve their reputations as fair and prestigious markets.[555] This is undoubtedly true with regard to the passage of rules, such as listing standards and rules governing trading. However, a single SRO system could preserve the markets' authority to adopt these rules, subject only to SEC approval.[556] Moreover, with regard to enforcement, the actual and apparent conflicts inherent in a for-profit exchange are too great to allow a for-profit entity to fulfill a self-regulatory function. Given the often vicious competition for order flow and the need to generate consistent profits for shareholders, the

551. The effect of this conflict will be either partially alleviated or eliminated when the NASD fully directs itself of its ownership in Nasdaq, depending on the degree of control Nasdaq market makers have over the NASD.

552. James Cox, *Brands vs. Generics: Self-Regulation by Competitors*, 2000 COLUM. BUS. L. REV. 15, 18 (2000).

553. *See supra* Part X.D (discussing the demutualization of the securities markets).

554. *See supra* Parts VIII.A-B (discussing the enforcement actions against the NASD and NYSE). In addition, the proposed demutualization of Nasdaq illustrated the potential conflicts that exist whenever a regulator is controlled by members of the same industry it regulates. A group of market makers opposed Nasdaq's demutualization plans based on concerns relating to the NASD's self-regulatory role. The members were concerned that the staff of NASDR conducted lengthy examinations on busy trading days and demanded, among other things, a "regulatory bill of rights" for NASD employees and member firms, and an "office of member's advocate." William Hoffman, *Washington Watch: Firms' Legal Steps to Block Nasdaq Sale; Dissidents Attach NASD for Silence as Historical Deal Approved*, TRADERS MAG., May 1, 2000, *available at* 2000 WL 11133567. The connection between the traders' complaints and demutualization was unclear; it appears that the demutualization debate merely provided an opportunity for the traders to be heard. In any event, the traders' action illustrates the pressure on self-regulatory organizations to be a less intrusive, which could mean a less effective, regulator. This pressure would likely increase if the complaining parties were shareholders rather than members.

555. *See* Roberta S. Karmel, *Should There be a Single SRO?*, N.Y. L.J., Oct. 21, 1999, *available at* LEXIS, News Library, New York Law Journal File.

556. *See supra* Part II (discussing SROs).

incentive to spend funds on technology and marketing at the expense of regulation will be clear.

The disciplinary failures of the NASD and the NYSE that led to SEC actions resulted not from simple neglect of the enforcement process but from misplaced priorities. In the NASD's case, at least, this resulted from market makers exerting excessive influence over the disciplinary process. Given the ability of relatively small groups of shareholders to exercise control over a corporation, the potential for undue influence once the exchanges are for-profit is immense. One can imagine the pressures that the regulatory arm of an exchange would face in determining whether to bring a disciplinary action against a major shareholder or group of shareholders. In addition, there is a risk that markets will cut costs relating to their self-regulatory function in the interest of improving profits, or that markets will compete on the basis of the most lenient regulations.[557]

An alternative to the creation of a single self-regulatory organization would be a separate regulator for the marketplaces. However, a single SRO would be preferable because the relatively small number of members of a marketplace SRO would give rise to conflicts between the interests of the board of governors and the regulated exchanges.[558] An additional advantage of a single regulator would be that it would ease the financial burden on markets seeking exchange status. These markets could utilize the services of the single SRO in exchange for a fee, rather than developing their own self-regulatory system. Moreover, a single SRO could oversee the adoption and administration of any joint industry plans that are needed between the markets, reducing some of the squabbling and delays that have characterized most such plans in the past.

XII. CONCLUSION

The technological advances in the securities industry since 1975 have been astounding. In at least one respect, however, the industry has not changed significantly in the past quarter century. The Commission observed in 1974 that "while most industries study problems to death,

557. The NASD is ahead of the exchanges in seeking to eliminate the conflict between for-profit status and the exercise of self-regulatory functions because of its eventual divestiture of its interest in Nasdaq. However, none of the exchanges have planned similar moves.

558. For example, if the board of governors of an SRO consisted of exchange officials, conflicts would arise in almost every disciplinary or rule-making proceeding. If the board consisted of representatives of brokerage firms, which would use the services or many or all of the exchanges, and members of the public, as the NASD's board of governors is currently constituted, the conflict would be significantly lessened.

the securities industry studies solutions to death."[559] As a result, conclusions on the structure of the markets and their oversight have lagged behind technological developments. Commission implementation of the suggested changes would allow a national market system to develop without the rigidity of a CLOB or other government-mandated structure. The forces of competition have done a remarkable job of spurring innovations and developments in technology, and they should be allowed to continue. Moreover, continued competition will allow investors and not the government or the operators of the various markets to decide which markets are superior. Most importantly, these operators will have the continued incentive to provide the best and most efficient execution of investor orders. As most or all exchanges become for-profit entities, there is a danger that the markets will not devote the same energy to regulation as they do to improving performance. A single self-regulator, unaffiliated with any of the markets and subject to Commission oversight, would help ensure that the United States securities markets are the most advanced and fairest in the world.

559. Fixed Commission Rates on Exchange Transactions, Exchange Act Release No. 11,093, 5 S.E.C. Docket (CCH) 439 (Nov. 8, 1974), *available at* 1974 WL 18573, at *8 (S.E.C.).