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The Dangerous Territoriality of American Securities Law: A Proposal for an Integrated Global Securities Market

John G. Moon*

Abstract

Market participants, academicians, and governmental officials debated how the United States government should structure multiple securities exchanges for several years before Congress mandated the establishment of the National Market System in the 1975 Amendments to the Securities Exchange Act of 1934. During the intervening twenty-five years, recurring issues concerning the transparency, fragmentation, and fairness of the National Market System have remained unresolved. Recently, the globalization of securities markets and the development of Internet technology that permits cost-effective transnational securities trades and markets have exacerbated these issues. In fact, Internet technology makes the development of an integrated global securities market not only feasible, but optimal.

This essay reviews the SEC's approach to the National Market System with an emphasis on developments since the advent of the Cyber-age. The review shows that, despite technological developments that have propelled markets towards globalization, the SEC has taken a distinctly territorial approach in creating a safe harbor from registration for foreign stock ex-

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changes that utilize the Internet. At present, the SEC is considering the conditions under which such a foreign exchange must register. This essay argues that the SEC should focus more on the systems architecture of foreign securities exchanges and less on its present territorial approach. While maintaining the National Market System and the existing safe harbor, this essay argues that market participants should apply for, and the SEC should consider, granting registration to an Internet-based securities market. The SEC should not base this grant of registration upon the geographic locus of the exchange, or of its members or issuers. Rather, the SEC should grant the registration upon a showing that the exchange's systems architecture furthers the objectives of the federal securities laws.

The proposed integrated global securities market ("IGSM") would serve as a SRO/exchange that would accept listings from an issuer as long as the issuer meets the disclosure requirements of its home jurisdiction. An issuer listed on the IGSM could not be traded on another exchange, unless that exchange participated in the price/time priority order book of the IGSM. This condition would resolve many of the difficulties that have plagued the National Market System. The IGSM proposal takes account of considerations of regulatory competition because: (1) the price of an issuer's shares traded on the IGSM would reflect the issuer's home country standard of disclosure; (2) the IGSM would compete for listings against other exchanges with higher or lower mandatory levels of disclosure, including those in the National Market System; and (3) the IGSM prevents the listing of an issuer from a strict regulatory regime being traded on an exchange from a lax regulatory regime, i.e., regulatory free-riding.

I. INTRODUCTION

On January 14, 2000, the EASDAQ¹ announced that it would begin trading the ten largest NASDAQ-listed issuers within one week, "a move that does not require the consent of the companies involved." The "NASDAQ Ten" represent a combined market capitalization of US\$2.34

¹ "EASDAQ" stands for the European Association of Securities Dealers Automated Quotation System. The EASDAQ, established in 1996, is a self-styled "independent pan-European stock market [offering] international growth companies and investors seamless cross-border trading, clearing and settlement within a unified market infrastructure." *The Pan-European Exchange*, *EASDAQ*, at http://easdaq.com/easdaq.asp (last visited Sept. 23, 2000).

² Sylvia Ascarelli, *Easdaq to Trade 10 Leading Stocks Listed on the Nasdaq*, WALL St. J., Jan. 14, 2000, at C6.

³ The "NASDAQ Ten" issuers are comprised of Microsoft Corp., Cisco Systems, Inc., Intel Corp., Oracle Corp., Sun Micosystems, Inc., MCI WorldCom, Inc., Dell Computer Corp., Yahoo! Inc., Amgen Inc., and Amazon.com, Inc. See id.

trillion.⁴ This constitutes a substantial portion of domestic market capitalization, and it represents an amount comparable to the total market capitalization of each of the five U.S. regional exchanges: the Boston, Chicago, Cincinnati, Pacific, and Philadelphia Stock Exchanges. This watershed development illustrates several existing difficulties inherent in the National Market System ("NMS") because transactions in these new "household name" issuers take place in a foreign jurisdiction and are not necessarily reported on the NMS. This essay's analysis of the NASDAQ Ten applies to all traded issues: domestic and foreign, large and small cap, and liquid and illiquid.

Congress mandated that the Securities and Exchange Commission ("SEC" or "Commission") facilitate the development of the NMS in the 1975 Amendments⁵ to the Securities Exchange Act of 1934 ("the Exchange Act").⁶ Although observers have long debated issues of market fragmentation, payment for order flow, and transparency with regard to the NMS, these issues have become exacerbated by the globalization of securities markets in a high-technology environment that permits investors and market intermediaries to make cross-border transactions quickly and inexpensively. This debate has been grounded in the fact that, as noted above, public issuers exercise no choice over the securities market in which their shares are traded.

This essay examines the territorial character of the NMS despite the existence of technology that has created a global securities market. Part II provides background for the dilemma faced by the SEC in developing a regulatory policy for addressing global Internet stock trading by summarizing the legal, market, and technological background of the problem. A review of the SEC's approach to regulating market structure yields three conclusions. First, the SEC has maintained a policy of modifying the regulation of market structure only incrementally since passage of the 1975 Amendments. Second, this approach has retained a bias towards the regulation of a territorial, rather than a global, market structure. Supporting this conclusion, a recent statement from the Commission⁷ addresses the offer of

⁴ The market capitalization of an issuer is the product of the number of the issuer's shares times the market value of a single share. This figure was derived from the sum of the market capitalizations of the NASDAQ Ten issuers at the market close on March 21, 2000, as reported on http://www.finance.yahoo.com (on file with author). The market capitalizations (in US\$ billions) were: Microsoft Corp. (534.8), Cisco Systems, Inc. (488.6), Intel Corp. (462.5), Oracle Corp. (227.7), Sun Micosystems, Inc. (173.4), MCI WorldCom, Inc. (124.4), Dell Computer Corp. (148.8), Yahoo! Inc. (101.0), Amgen Inc. (62.6), and Amazon.com, Inc. (24.7). See Yahoo!Finance, at http://finance.yahoo.com.

⁵ See Securities Acts Amendments of 1975, Pub. L. No. 94-29, 89 Stat. 97 (1975) (codified in scattered sections of 15 U.S.C.).

⁶ 15 U.S.C. § 78a et seq [hereinafter Exchange Act].

⁷ See Statement of the Commission Regarding Use of Internet Web Sites to Offer Securities Transactions or Advertise Investment Services Offshore, Securities Act Release No. 33-

services by a stock exchange over the Internet. In this statement, the SEC relied on the "Targeting Approach." Pursuant to the Targeting Approach, the Commission will not require a foreign exchange using a Web site to register as long as it does not target its services to residents of the United States, and if it takes steps reasonably designed to prevent U.S. residents from directing orders to the exchange through its Web site. Such steps include placement of a disclaimer on the Web site stating that U.S. residents cannot access the exchange's services. Third, Part II reveals that the Commission's incremental approach to the regulation of market structure has not resolved issues of order fragmentation, payment for order flow, and transparency presented by the NMS. The Commission's May 27, 1997 statement on the regulation of exchanges⁸ indicates that the Commission favors an approach that will not only keep open the issues which have beset the NMS, but will extend the NMS to global securities market linkages.

Although the Commission's regulation and adjustment of market structure has remained a slow and incremental process over the last twenty-five years, Part II summarizes how relevant changes in global securities markets have been rapid and revolutionary. Cross-border listings and transactions in securities are increasing at an extraordinary rate. Physical stock exchanges are consolidating domestically and abroad, while electronic trading systems are proliferating. It is not surprising that technology, particularly the Internet, drives many of these changes. We have long known that due to technological advances, "markets no longer are, or need to be, physical places." The territorial focus of the SEC's Targeting Approach, however, runs counter to the borderless global securities market created by the Internet.

Part II further reveals that, contrary to popular belief, the Internet is readily subject to regulation for the purpose of creating efficient securities markets. A summary of Internet architecture indicates that although it is a medium not prone to regulation with respect to geopolitical borders, a regulator can control access to information, interaction among participants, and surveillance of financial transactions within a partially "closed" systems architecture—the same activities that securities regulators presently exercise over exchanges.

Part III of this essay critiques the current policy approach towards transnational trading of securities over the Internet. Part III analyzes the

^{7516,} Exchange Act Release No. 34-39779, 66 SEC Docket 1869 (Mar. 23, 1998) [hereinafter Internet Release].

⁸ See Regulation of Exchanges, Exchange Act Release No. 34-38672, 64 SEC Docket 1631 (May 23, 1997) [hereinafter Regulation of Exchanges Release].

⁹ U.S. Equity Market Structure Study, Exchange Act Release No. 34-30920, 51 SEC Docket 1524, 1541 (July 14, 1992) (reprinting letter from Richard Breeden, Chairperson of the SEC, to Edward Markey, Chairperson, Subcommittee on Telecommunications and Finance (July 11, 1991) [hereinafter Market Structure Study Release].

Targeting Approach in light of the findings in Part II about globalized securities markets and technological developments. This analysis is timely because the International Organization of Securities Commissions ("IOSCO")¹⁰ adopted the Targeting Approach, as have several regulators of developed securities markets. The implication for global securities markets of the Targeting Approach is a dangerous territoriality: if every national securities regulator applied this approach to stock exchanges that offer trading capacity over the Internet, the result would be regulatory uncertainty for domestic and foreign exchanges, fragmentation of the global securities market, and the limitation of Internet-based stock exchange services to each exchange's home jurisdiction.

As the Targeting Approach presents a narrow safe harbor of territorial character, Part IV proposes a solution to the problem of fragmented global markets via the Internet by recommending that the Commission consider systems architecture in the regulation of exchanges. One approach would be for market participants to propose, and for the Commission to consider, the high regulatory objective of registering an exchange of transnational membership, disclosure and listings that utilizes systems architecture to protect investors and promote efficiency. For the purposes of this essay, such a proposed exchange is termed an "Integrated Global Securities Market" ("IGSM"). Part IV proposes that the IGSM would be an exchange, depository, and self-regulatory organization that is on an automated ordermatch systems platform with remote access for intermediaries and investors. Under this proposal, the IGSM applicant would seek approval for "home country" levels of disclosure for issuers, but maintain the high standards of transparency, execution, recordkeeping, membership, and surveillance that are equal to or better than those found within the NMS. Arbitration agreements would be binding on issuers, participants and investors in order to reduce difficulties arising out of foreign court processes. Issuers, participants, and investors could be located in any country and trade securities on the IGSM over the Internet or other suitable communications media as long as they adhere to the federal securities laws and the rules of the IGSM. The members of the IGSM and the location of the IGSM's computerized trading system could also be located in any country as long as the SEC, directly or indirectly through a Memorandum of Understanding, had clear regulatory capacity over the IGSM and all its operations.

¹⁰ Securities regulators and exchanges from 158 countries constitute IOSCO. The objectives of IOSCO are the cooperation among regulators to set high standards of securities regulation and the exchange of information among members. Most of IOSCO's work is carried out by the following special committees: Disclosure and Accounting, Secondary Markets, Intermediaries, Enforcement, and Investment Management. IOSCO also has several executive and regional committees. The General Secretariat of IOSCO is staffed by six people. See generally IOSCO, 1998 ANNUAL REPORT, available at http://www.iosco.org/annual_report (last visited Mar. 22, 2000).

Part IV argues that an IGSM presents an efficient alternative to extending the NMS's regulatory obligations to foreign exchanges through the Targeting Approach. An IGSM creates an environment for regulatory competition by various jurisdictions having differing disclosure requirements and by preventing regulatory "free riding." Moreover, the concept of an IGSM correlates to the efficiencies produced by the low-cost, transnational medium of the Internet. Finally, because an IGSM consolidates order execution in a price/time priority book, the proposal resolves several of the issues regarding the NMS that are surveyed in Part II. There are several possible objections to the IGSM proposal, which Part IV addresses.

The essay concludes by directing its recommendations to market participants and issuers to make a concrete IGSM proposal to the SEC.

II. BACKGROUND: THE SEC'S TERRITORIAL APPROACH TO REGULATING MARKET STRUCTURE IN A GLOBAL MARKETPLACE

The SEC's approach to modifying the NMS to meet market and technological conditions has been slow and incremental. In contrast, advances in market globalization and technology have been dramatic. Indeed, technology has driven the evolution of market structure before and after the creation of the NMS. ¹¹ The advent of the ticker tape spawned the notorious bucket shops, ¹² and expensive long-distance telephone tolls supported the development of regional exchanges. ¹³ This section argues that the development of widespread Internet use for order flow and the proliferation of alternative trading systems ("ATSs") have created a paradigm for efficient global securities market structure that the territorial nature of domestic securities regulation ignores.

¹¹ See generally Donald Langevoort, Information Technology and the Structure of Securities Regulation, 98 HARV. L. REV. 747 (1985); Lewis D. Solomon & Louise Corso, The Impact of Technology on the Trading of Securities: The Emerging Global Market and The Implications for Regulation, 24 J. MARSHALL L. REV. 299 (1991) (arguing for prompt regulatory action in light of advances in technology at the time); Corinne Bronfman, Kenneth Lehn & Robert A. Schwartz, The SEC's Market 2000 Report, 19 J. CORP. L. 523, 524 (1994).

¹² See Paul G. Mahoney, *The Exchange as Regulator*, 83 VA. L. REV. 1453, 1484-85 (1997). A "bucket shop" was an unregistered broker-dealer that accepted market orders from customers for transactions in securities, but did not execute them at the prevailing market price. See BARRON'S DICTIONARY OF FINANCE AND INVESTMENT TERMS 68 (John Downes & Jordan Elliot Goodman eds. 1998).

¹³ See Dale A. Oesterle, Comments on the SEC's Market 2000 Report: On, Among Other Things, Deference to SROs, the Mirage of Price Improvement, the Arrogation of Property Rights in Order Flow, and SEC Incrementalism, 19 J. Corp. L. 483, 506 (1994).

A. Legal Background: An Incremental Approach to Extending the National Market System

This section provides summary background of the 1975 Amendments and the SEC staff's first major assessment of the NMS, the Market 2000 Report. Then, focusing on more recent regulatory activity, this section describes the Commission's releases on the regulation of exchanges, the Internet, and ATSs. This survey indicates that Professor Langevoort's observation of fifteen years ago holds true today:

In 1975 [Congress] directed the SEC to oversee the implementation of a 'national market system' that would enlist information technology as a means to move to a more efficient and competitive marketplace. To date, however, the regulatory efforts in that direction have remained less than revolutionary. Rather than remake the market system, the SEC has concentrated on reforms within the existing structure, particularly with regard to communications and order-routing among competing exchanges.¹⁴

The legal background of the NMS sets the stage for the Commission's present dilemma in the Cyber-age. The Commission has adhered to the same regulatory scheme for twenty-five years during which global markets and technology have evolved radically.

1. The 1975 Amendments and Creation of the National Market System

The 1975 Amendments to the Exchange Act created the NMS. ¹⁵ Congress intended the 1975 Amendments to prevent several negative consequences resulting from inefficiencies in the domestic securities market at the time. ¹⁶ These inefficiencies arose because securities exchanges had become increasingly interdependent due to technological innovations but lacked the flexibility to meet the challenges of changed economic conditions since passage of the Exchange Act. ¹⁷ After five years of study, Congress found that the lack of coordination between markets caused misallocation of capital, widespread inefficiency, and potentially harmful trading fragmentation. ¹⁸

In the 1975 Amendments, Congress specifically endorsed the development of the NMS, and set forth its objectives as: (i) economically efficient executions of securities transactions; (ii) fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets; (iii) public availability of

¹⁴ Langevoort, *supra* note 11, at 754-55.

¹⁵ See Securities Acts Amendments of 1975, Pub. L. No. 94-29, 89 Stat. 97 (1975) (codified in scattered sections of 15 U.S.C.).

¹⁶ The concept of a national market system was initiated by the findings of the Commission's 1971 Institutional Investor Study. *See generally* SEC, Institutional Investor Study Report, H.R. Doc. No. 64, 92nd Cong. (1st Sess. 1971).

¹⁷ See H.R. REP. No. 94-123, at 44 (1975).

¹⁸ See S. Rep. No. 94-75, at 1 (1975).

quotation and transaction information; (iv) investor access to the best markets; and (v) an opportunity, consistent with clauses (i) and (iv), for the orders of investors to be executed without the intermediation of a dealer.¹⁹

Due to the uncertainty over how technological and economic changes would affect the securities markets over time, Congress explicitly rejected an approach that mandated specific components of the NMS. In contrast, the 1975 Amendments granted the Commission flexible powers to ensure "that the securities markets and the regulations of the securities industry remain strong and capable of fostering [the] fundamental goals [of the Exchange Act] under changing economic and technological conditions."20 Certainly, technological innovations played a substantial role in the 1975 Amendments. The hallmark of the 1975 Amendments, new Exchange Act Section 11A, directed the Commission to implement the NMS in accordance with Congressional findings that "[n]ew data processing and communications techniques create the opportunity for more efficient and effective market operations" and that "[t]he linking of all markets for qualified securities through communication and data processing facilities will foster efficiency, enhance competition, [and] increase the information available to brokers, dealers, and investors"²¹

After passage of the 1975 Amendments, the Commission made fundamental market structure changes in the U.S motivated by "the most important objective of the [NMS], to foster the development of strong competition among its members." The NMS led to three major changes in the regulatory structure of U.S. trading markets: abolition of fixed commissions, elimination of anti-competitive trading restrictions on exchange members, and creation of information linkages between markets constituting the NMS. The most prominent of these changes was the abolition of the NYSE Rules that, from 1792 until May 1, 1975, fixed commission rates and prohibited members from discounting commissions.²³

For the purposes of this essay, the second change is more relevant than the abolition of fixed commission rates. This change eradicated exchange rules that restricted off-exchange trading by members.²⁴ Significantly, the Commission sought to eliminate boundaries between the market centers and

¹⁹ See Exchange Act § 11A(a)(1)(C), 15 U.S.C. § 78k-1(a)(1)(C) (2000).

²⁰ S. REP. No. 94-75, *supra* note 18, at 3.

²¹ Langevoort, supra note 11, at n.27.

²² SEC, Policy Statement on the Structure of a Central Market System 8 (Mar. 29, 1973); see also Joel Seligman, The Future of the National Market System, 10 J. CORP. L. 79, 117-18 (1984).

²³ See generally Gregg A. Jarrell, Change at the Exchange: The Causes and Effects of Deregulation, 27 J.L. & ECON. 273, 276 (1984).

²⁴ See generally Laura N. Beny, A Survey of Current Regulatory and Structural Issues U.S. Secondary Markets and a Reform Proposal (Harvard Law School Working Paper), at http://www.cyber.law.harvard.edu/rfi/papers/index.html (last visited Mar. 23, 2000) [hereinafter Survey].

to create a unified structure of competing market centers.²⁵ In so doing, the SEC targeted for elimination "any and all rules of national securities exchanges which limit or condition the ability of members to effect transactions in securities otherwise than on such exchanges."²⁶

The NMS's third and most relevant change to pre-1975 market structure was the establishment of a highly complicated network of information technology systems that connected different market centers throughout the country. These systems include the Consolidated Tape, the Consolidated Quotation System ("CQS"), and the Intermarket Trading System ("ITS").²⁷ The Consolidated Tape reports securities transactions within 90 seconds of completion for most securities listed on an exchange, regardless of whether the trades occur on an exchange or on the OTC market.²⁸ The Automated Confirmation Transaction Reporting Service ("ACT"), a NASDAQ-operated reporting system, supplements the Consolidated Tape, which disseminates last sales information in real time for most non-exchange-listed securities (i.e., NASDAQ securities).²⁹

In contrast to the transaction reporting that takes place on the Consolidated Tape and the ACT, the CQS publicly distributes pre-transaction quotation information; that is to say, it disseminates highest bid and lowest offer prices ("NBBO") for almost all exchange-listed securities based on the quotations furnished by exchanges and OTC dealers. Exchanges must submit the price quotations and trade sizes at which their members have indicated a willingness to trade. Similarly, the NASD must provide the NBBO prices and quotation sizes at which member broker-dealers are willing to trade. In addition to the CQS, the NASDAQ Quotation Dissemination Service ("NQDS") reports the NBBO information for

²⁵ According to Professors Davis and Lightfoot, in creating the design of the NMS, "the efforts of individual marketplaces to achieve consolidation at the expense of other marketplaces were to be displaced by a much grander effort that would no longer recognize marketplace boundaries." Jeffrey L. Davis & Lois E. Lightfoot, *Fragmentation Versus Consolidation of Securities Trading: Evidence from the Operation of Rule 19c-3*, 41 J. L. & ECON. 209, 211 (1998).

²⁶ Id.

²⁷ See generally Allen Ferrell, The Problem of Small Investors and Inefficient Market Competition: A Deregulatory Proposal 39-42 (Harvard Law School Working Paper) (presented to Seminar on Corporate Law Policy, Harvard Law School, November 23, 1999); see also Morris Mendelson & Julius Peake, Intermediaries' or Investors': Whose Market is it Anyway?, 19 J. CORP. L. 443, 463 (1994).

²⁸ See Ferrell, supra note 27, at 39.

²⁹ See Nasdaq Stock Market, NASD Manual (CCH) ¶¶ 4630-42, at 5,871-5,904 (Dec. 2000).

³⁰ See Ferrell, supra note 27, at 39 (citing MARKET 2000 REPORT, infra note 42, at Appendix III, p.3).

³¹ See id. (citing 17 C.F.R. § 240.11Ac1-1(b)(1)(i)).

³² See id. (citing 17 C.F.R. § 240.11Ac1-1(b)(1)(ii) and noting the existence of exceptions to this requirement).

NASDAQ National Market System and Small Cap securities, and securities dealers must fill their bids and asks at the prices they post on the NQDS.³³

The ITS enables members of one market center to route their orders to another market center for execution by linking OTC dealers and the exchanges through a linkage from the ITS to the NASDAQ linkage, the NASD's Computer Assisted Execution System ("CAES").³⁴ The CAES also allows OTC dealers to transfer orders for exchange-listed securities among themselves for execution through the ITS/CAES linkage.³⁵

Unfortunately, this complicated series of systems linkages has failed to ensure that orders for securities are always executed at the NBBO,³⁶ and "[a]lmost everyone agrees that the ITS is flawed, but for different reasons."³⁷ As a result of these flaws, securities markets have not competed for order flow by revealing the highest bid or lowest offer for a security that is possible. This proposition finds support in statistical evidence comparing the spreads of listed securities before and after implementation of the ITS³⁸ and a comparison of spreads for ITS versus non-ITS stocks.³⁹ The reasons for the phenomenon of exchanges not competing though exposure of the best NBBO are generally cited as the ability of markets to cross orders inside the NBBO spread, the reluctance of dealers or specialists to risk posting quotes on the CQS or NQDS when the market might move against their quotes, and a basic inability of the NMS linkages to capture all trading interests instantaneously, thereby making the future of those systems quite uncertain.⁴⁰

In summary, the NMS reporting systems are far from seamless. The various reporting linkages attempt to operate across different types of markets (order-driven vs. broker-driven), to disseminate information on products subject to different listing requirements, and to capture bid/ask as well

³³ See id. at 39-40 (citing 17 C.F.R. § 240.11Ac1-1(c)(1), (2), (10) and MARKET 2000 REPORT, infra note 42, at Appendix III, p.2 n.10).

³⁴ See id. at 40.

³⁵ See Adoption of Amendments to ITS System Plan to Expand the ITS/CAES Computer Assisted Linkage to all Listed Securities, Exchange Act Release No. 34-42212, 71 SEC Docket 547 (Feb. 14, 2000).

³⁶ See Ferrell, supra note 27, at 41-42.

³⁷ Greg Ip, NYSE, in Break With Heavyweights, Calls For End to System Linking Markets, WALL St. J., Apr. 7, 2000, at C1.

³⁸ See Ferrell, supra note 27, at 42 (citing SEC, Directorate of Economic Policy and Analysis, A Monitoring Report on the Operation of the ITS System: 1978-1981, 40 (June 1982)).

³⁹ See id. at 42 (citing Marshall Blume & Michael Goldstein, Quotes, Order Flow and Price Discovery, 52 J. Fin. 221, 235 (1997)).

⁴⁰ See Ferrel, supra note 27, at 43-44 (collecting sources). Recently, the N.Y.S.E. has asked to withdraw from the Consolidated Tape and CQS, arguing that technological advances have provided broker-dealers with the ability to obtain similar information without those systems. See Greg Ip, NYSE Tells Regulators It Wants to Quit Stock-Data Distribution Organization, WALL St. J., Apr. 12, 2000, at C8.

as transactional data. Such an overview of NMS reporting systems lends support to the observation that the Consolidated Tape, ITS and CQS are "a Byzantine set of systems which would have put the late cartoonist Rube Goldberg's fertile imagination to shame . . . [The] 'ITS, which links the New York with some regional exchanges, is a communications device and nothing more. It is as far from the concept of an automated, efficient marketplace as a tom-tom is from a communications satellite."⁴¹

2. The Market 2000 Report—January 27, 1994⁴²

The Market 2000 Report, announced in 1992⁴³ and released in 1994, set forth the findings of the SEC's Division of Market Regulation (the "Staff") on the NMS. The Market 2000 Report was the first major assessment of the NMS by the Staff or the Commission since its establishment. The Staff believed an assessment was warranted because the domestic securities markets had changed dramatically due to advances in technology, globalization of markets, and innovation of products, and these developments had caused market participants to question the efficacy of the NMS.⁴⁴ The Market 2000 Report addressed whether the NMS had fostered the competition that resulted in efficient pricing, effectively disseminated market information, improved execution of orders, and improved customer service by broker-dealers.⁴⁵ Significantly, the Staff found that "today's equity markets are operating efficiently within the existing regulatory structure,"⁴⁶ and that "[r]ecord amounts of trading activity are processed smoothly and efficiently";⁴⁷ therefore, the Staff did not "believe that a major revision in equity market regulation is needed."⁴⁸

In the Market 2000 Report, the Staff assessed and rejected two proposals for revolutionary modification to the NMS: the "single-market ap-

⁴¹ Mendelson & Peake, supra note 27, at 447 (quoting Progress Toward the Development of a National Market System: Joint Hearings Before the Subcomm. on Investigations and the Subcomm. on Consumer Protection and Finance of the House Comm. on Interstate and Foreign Commerce, 96th Cong. 70 (1979)).

⁴² See Division of Market Regulation, U.S. Securities and Exchange Commission, Market 2000: An Examination of Current Equity Market Developments (1994) [hereinafter Market 2000 Report]. For a symposium on the Market 2000 Report, see Symposium: Market 2000, 19 J. Corp. L. 437 (1994).

⁴³ See Market Structure Study Release, supra note 9, at 1524.

⁴⁴ See Market 2000 Report, supra note 42, at 1.

⁴⁵ See id.

⁴⁶ *Id*.

⁴⁷ Id.

⁴⁸ Id. at 2. The Division of Market Regulation reported that minor regulatory revisions were needed in the areas of: 1) fair treatment to investors, 2) dissemination of market information, 3) fair competition among markets and participants, and 4) open access to markets. See generally id., at studies II-VII.

proach" and a deregulatory approach.⁴⁹ The Staff found a preferable approach to be "discrete, incremental market improvements within the ambit of its historical regulatory role: protecting investors, facilitating fair market competition, and promoting full disclosure."⁵⁰ The Staff pressed on that the Commission should continue to provide guidance on where improvements are needed in certain areas. In most instances, responsibility for action should rest with "the markets themselves."⁵¹

To this conclusion, one contemporaneous observer stated that the Staff's conclusion ran counter to its ongoing regulatory practice:

The Staff's restraint, a hallmark of the *Report*, seems admirable until it is put in context. The existing structure of the equity markets in the United States is excessively complex, and it has been created by, or with the approval of the SEC. So, the SEC, after having created a cumbersome, overly regulated system, with multiple tiers and sub tiers, now says it will let markets work and act "incrementally." ⁵²

As discussed further *infra*, other Commentators also assessed the NMS more disfavorably than did the Staff,⁵³ and the unified market approach has continued to have its adherents.⁵⁴

3. The Regulation of Exchanges Release—May 23, 1997

On May 23, 1997, the Commission issued a "Concept Release on the Regulation of Markets in Light of Recent Advances in Technology and Transnational Development of Securities Markets" ("Regulation of Exchanges Release"). This Release examined the significant challenges to the existing regulatory framework created by technological advances. The Regulation of Exchanges Release stated that two primary developments highlighted the need for a more forward-looking, flexible regulatory framework. These developments were the exponential growth of ATSs that presented comparable alternatives to traditional exchanges and the de-

 $^{^{49}}$ See id. at study III 5-7. For a discussion of the single-market approach, see infra Section IVA.

⁵⁰ *Id.* at study III-7.

⁵¹ Id. at study III-15.

⁵² Oesterle, *supra* note 13, at 505 (emphasis in original).

⁵³ See, e.g., Mendelson & Peake, supra note 27 (arguing that the NMS currently favors intermediaries at the expense of investors); Oesterle, supra note 13, at 507 (arguing that the NMS stifles competition by concentrating too much power in the SRO's); Bronfman, supra note 11, at 526 (arguing that the Commission should not be intervening in the current competitive environment with the NMS); see also infra Section II.A.6.

⁵⁴ See infra Section IV.A.

⁵⁵ See Regulation of Exchanges Release, supra note 8.

⁵⁶ This matter is dealt with in Sections II-VI of the Regulation of Exchanges Release, *su-pra* note 8. The result of the Commissions consideration of these matters is the ATS Release discussed *infra* notes 81 to 93 and accompanying text.

velopment of technology that facilitated access to foreign markets from the United States.⁵⁷

Although the lack of ATS participation in the NMS "call[ed] into question the fairness of current regulatory requirements, the effectiveness of existing NMS mechanisms, and the quality of public secondary markets," the Regulation of Exchanges Release recognized that the impact of technological change was not limited to the U.S. markets. The Commission recognized that the regulatory issues presented by unregulated ATSs were the same as those presented by foreign markets, information vendors, and broker-dealers whose automated systems enabled U.S. persons to trade directly on foreign markets from the United States. The Commission stated that because it had not addressed this issue:

[M]any foreign markets have been reluctant to provide these services directly to U.S. investors. This has highlighted the need to establish standards that can accommodate U.S. investors' growing interest in cross-border trading, and better ensure that this type of cross-border trading is subject to appropriate safeguards. At the same time, improved foreign market access would mean that U.S. investors can trade securities of companies listed solely on foreign markets as easily as securities of companies that satisfy the Commission's disclosure and reporting requirements. This would raise additional questions as to how to craft a regulatory scheme that provides sufficient information to investors about the securities they trade.⁶⁰

The Commission began its analysis for proposing a solution to this problem by dismissing two approaches that lay at the regulatory extremes: requiring foreign markets to register domestically and relying solely on the home country regulation of foreign exchanges.⁶¹ The Commission dismissed the former approach because domestic regulation was not necessarily designed to accommodate foreign exchanges with only limited operations in the United States.⁶² Moreover, domestic regulation could con-

⁵⁷ See Regulation of Exchanges Release, supra note 8, at 8. The latter issue is addressed in Section VII of the Release. Although the latter development is the focus of this essay, the regulation of ATSs in the Release sets the stage for further analysis. At the time of the Regulation of Exchanges Release, ATSs were not fully integrated into the NMS. See id. at 9. Consequently, the trading activity on ATSs was not necessarily disclosed to, or accessible by, investors. This trading activity, moreover, was not necessarily under regulatory surveillance for market manipulation and fraud. See id. Finally, the ATSs had no obligation to ensure that their trading systems could withstand periods of high volume. See id.

⁵⁸ *Id.* at 9.

⁵⁹ See id. at 9-10.

⁶⁰ *Id*. at 10.

⁶¹ The Commission stated that any regulatory approach should address the relative lack of disclosure about the securities of issuers that do not file reports pursuant to the Exchange Act, whether U.S. investors would receive sufficient disclosure of the risks of trading on a foreign market, and the ability of the Commission to enforce the federal securities laws in a foreign jurisdiction. *See id.* at 14.

⁶² See id. at 181.

flict with the home country market regulation or create unnecessarily duplicative or expensive regulatory obligations.⁶³ The Commission dismissed the latter approach because U.S. persons may incorrectly assume that they would receive the same level of investor protections that they would receive when trading on a U.S. market. In contrast, when compared to a U.S. market, a foreign market may: provide less information about the risks that accompany trading on a foreign market; operate under reduced levels of market surveillance, transparency and integrity; and provide less opportunity for civil relief.⁶⁴

The Regulation of Exchanges Release requested comment on a third proposed approach, one that regulates two basic categories of "access providers to foreign markets." The first category consisted of "entities that distribute or publish information regarding transactions on a foreign market, and provide a direct electronic link on behalf of the U.S. members of that foreign market" as "securities information processors" ("SIPs"). The second category consisted of foreign and domestic broker-dealers that "provide U.S. persons who are not members of a foreign market with the technological capability to trade directly on a foreign market. The Commission reasoned that because such access is functionally equivalent to the access provided by SIP access providers, it presents the same risks to U.S. investors. Consequently, similar requirements for record-keeping, reporting, disclosure, and fraud should apply to both SIPs and broker-dealer access providers. Both categories of intermediaries would be subject to NMS trade reporting requirements.

⁶³ See id.

⁶⁴ See id. at 175-180.

⁶⁵ Id. at 191-94.

⁶⁶ Id. at 195-99. Section 3(a)(22)(A) of the Exchange Act provides the definition of a SIP. See 15 U.S.C. § 78c(a)(22)(A) (1994). Section 11A(b) of the Exchange Act requires SIPs to register with the Commission. See 15 U.S.C. § 78k-1(b) (1994). Section 11A(b)(1) exempts non-exclusive SIPs from registration until such time as the Commission finds that the registration of such non-exclusive SIPs is necessary or appropriate in the public interest, for the protection of investors, or for the achievement of the purposes of Section 11A. See id. The Commission has not yet promulgated any such rules or orders. See Regulation of Exchanges Release, supra note 8, at n.236. In 1975, the Commission adopted Rule 11Ab2-1, which provides that each SIP that is required to be registered pursuant to Section 11A(b)(1) of the Exchange Act (i.e., exclusive SIPs) must file an application for registration on Form SIP. See Notice of Adoption of Rule 11Ab2-1 and Related Form SIP, Exchange Act Release No. 34-11673,7 SEC Docket 918 (Sept. 23, 1975). Currently, five exclusive SIPs are registered under Section 11A: (1) the Consolidated Tape Association; (2) the Consolidated Quotation System; (3) the Securities Industry Automation Corporation; (4) NASDAQ; and 5) the Options Price Reporting Authority. See Regulation of Exchanges Release, supra note 8, at n.237.

⁶⁷ Regulation of Exchanges Release, *supra* note 8, at 183.

⁶⁸ See id. One commentator has observed that the definitions in the Release provide several loopholes that could become problematic, such as e-mail and major service providers, as well as online communications firms that provide data, but not an electronic link to foreign

The questions posed by the Regulation of Exchanges Release concerning the regulation of domestic access to foreign markets by SIPs, access providers, broker-dealers, and exchanges remain unresolved because the Commission has not provided further guidance on the matter. However, the Regulation of Exchanges Release indicates the preference of the Commission to expand the NMS to capture these linkages to foreign markets, rather than to devise a new regulatory regime to account for technological developments.

4. The Internet Release—March 23, 199869

In its release on The Use of Internet Web Sites to Offer Securities, Solicit Securities Transactions, or Advertise Investment Services Offshore, ("Internet Release"), the Commission delivered its views on the circumstances in which a securities exchange that offers its services over the Internet must register. The Internet Release promised to answer the question of when "sponsorship of an online trading system may give rise to the illegal operation of a private exchange." The Commission's general approach to the problem was that "when offerors implement adequate measures to prevent U.S persons from participating in an offshore Internet offer we would not view the offer as targeted at the United States and thus would not treat it as occurring in the United States for registration purposes." The Commission further stated that the determination whether "adequate measures" have been taken depends on the facts and circumstances of the particular situation.

markets. See John C. Coffee, Brave New World?: The Impact(s) of the Internet on Modern Securities Regulation, 52 Bus. LAW. 1195, 1230 (1997).

⁶⁹ See Internet Release, supra note 7.

⁷⁰ See id. at 2. The Internet Release similarly covers internet-based solicitations of securities-related services and products by offshore issuers, investment companies, broker-dealers, and investment advisors without triggering the registration requirements of the Securities Act of 1933, 15 U.S.C. § 77a et seq [hereinafter Securities Act], the Exchange Act, supra note 6, the Investment Advisers Act of 1940, 15 U.S.C. § 80b-1 et seq [hereinafter the Advisers Act], and the Investment Company Act of 1940, 15 U.S.C. § 80a-1 et seq [hereinafter Investment Company Act]. For a general analysis of the Internet Release, see Michael M. Mann et al., The Limits of Regulatory Jurisdiction in Cyberspace: Emerging Guidelines for Managing the Risk of Enforcement Action Based On Website Activity, in 1 SECURITIES LAW & THE INTERNET: DOING BUSINESS IN A RAPIDLY CHANGING MARKETPLACE, 225 PRACTICING LAW INSTITUTE (June-July 1999) [hereinafter SECURITIES LAW & THE INTERNET].

⁷¹ Brandon Becker & Soo J. Yim, *Trading Securities Online: Internet and Other Electronic Media, in Securities Law & The Internet, supra* note 70, at 298 (summarizing Commission Releases on the issue).

⁷² Internet Release, supra note 7, at 9.

⁷³ See id.

Based upon the jurisdictional language of the securities laws,⁷⁴ the Internet Release focused on the "targeting" or "soliciting" of U.S. investors to determine whether Internet activity is taking place "in the United States." In adopting the Targeting Approach, the Commission recognized that the Internet operates globally without regard to political or geographic boundaries and that this characteristic of the Internet presents significant issues for the administration of the U.S. securities laws. According to one commentator, the Targeting Approach "eschew[s] the knee-jerk exercise of jurisdiction over all Internet transactions simply because of the Internet's inherently cross-border nature."

The Internet Release provided the safe harbor from registration for a foreign exchange sponsoring a Web site that advertises its services, disseminates quotes (including in real time), or permits orders to be directed to the exchange through its Web site. The Internet Release stated that the Commission will not require such an exchange to register as long as "the exchange takes steps reasonably necessary to prevent U.S. persons from directing orders to the market from its Web site." The Commission stated that it would consider "reasonably necessary steps" to be taken, if the exchange:

Posts a disclaimer on the Web site affirmatively stating either the countries in which the exchange's services are directly available, or that the exchange's services are not directly available to U.S. persons;

Requires potential members or direct participants in the exchange to state their residence and mailing address;

Refuses to allow trading on the exchange through any Web site by any person that the exchange has reason to believe, or that indicates it, is a U.S. person; and

Refrains from making arrangements to provide U.S. persons with access to the exchange over the Internet indirectly through its members.⁷⁹

Significantly, the Internet Release only created a safe harbor from registration. The Internet Release stated that the Commission is considering the circumstances in which a foreign exchange that provides U.S. persons with direct trading privileges must register, referring to the Regulation of

⁷⁴ Section 5 of the Exchange Act requires an exchange to register with the Commission if "it make[s] use of the mails or any means or instrumentality of interstate commerce for the purpose of using any facility of an exchange within or subject to the jurisdiction of the United States to effect any transaction in a security, or to report any such transaction...." 15 U.S.C. § 78e (1997).

⁷⁵ Internet Release, *supra* note 7, at 2-3.

⁷⁶ See id. at 4-6.

⁷⁷ Mann et al., *supra* note 70, at 227.

⁷⁸ Internet Release, supra note 7, at 31.

⁷⁹ *Id.* at 31-32.

Exchanges Release, discussed *supra*. ⁸⁰ In the event that a foreign exchange is required to register due to Web site transactions with U.S. investors, it will be subject to the regulatory obligations of the NMS. Therefore, the Internet Release indicates the Commission's willingness to extend the NMS to offshore Internet-based exchanges under certain circumstances.

5. The Alternative Trading Systems Release—December 2, 199881

The SEC adopted final rules regarding the regulation of alternative trading systems ("ATS Release") which became effective, with certain exceptions, on April 21, 1999. The ATS Release, which responded to the proliferation of ATSs, further indicates the Commission's preference to work within the parameters of the NMS, rather than propose significant reform in the face of revolutionary technology. Before issuance of the ATS Release, ATSs were private trading systems that centralized and executed orders, but were not registered with the SEC as exchanges. 82 The growth of ATSs, made possible by technological advances, has been dramatic. The SEC estimated that over 40 ATSs were in operation at the time of the Release, and they executed approximately 20% of the orders to trade NASDAO-listed securities and 4% of the orders for exchange-listed securities, an increase from 13% and 1.4% respectively only four years earlier.83 It was conceivable, therefore, that an ATS could become the primary market for some issues. However, ATSs were private markets, were regulated as broker-dealers, and were not registered as exchanges or national associations. The Commission found that because ATSs functioned as exchanges. but were not part of the NMS, disparities that affected investor protection and the operation of the markets as a whole emerged. The Commission found that the NMS' liquid and competitive markets resulted from linking them together in order to make the NBBO publicly known, but ATSs operated outside the NMS.

The ATS Release assessed the activity of ATSs in light of the goals of the NMS set forth by Congress in the 1975 Amendments.⁸⁴ For example, ATSs had no obligation to provide investors a fair opportunity to participate in their systems or to treat their participants fairly. The Commission found that trading on ATSs might not have been adequately surveilled for market

⁸⁰ Id. at n.58. For a discussion of the Regulation of Exchanges Release, see *supra* notes 55 to 68 and accompanying text.

⁸¹ See Regulation of Exchanges and Alternative Trading Systems, Release No. 34-40760, 63 Fed. Reg. 70844 (Dec. 22, 1998) (Codified at 17 C.F.R. Parts 202, 240, 242, and 249) [hereinafter ATS Release].

⁸² For an analysis of the ATS Release, see Howard L. Kramer & Andre E. Owens, SEC Adopts New Rules Governing Alternative Trading Systems, in SECURITIES LAW & THE INTERNET, supra note 70, at 599.

⁸³ See ATS Release, supra note 81, at 3-4.

⁸⁴ See id. at 5.

manipulation and fraud. In addition, ATSs were not required to have systems capacity sufficient to handle rapid increases in trading volume that can take place during periods of market stress.

The SEC's solution to these problems involved bringing ATSs under the regulatory umbrella of the NMS. The Commission accomplished this by promulgating new Exchange Act Rule 3b-16, which interprets broadly the statutory definition of "exchange" under Section 3(a)(1) of the Exchange Act. 85 Pursuant to Section 3(a)(1), the definition of "exchange" included 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."86 In the ATS Release, the Commission revised Rule 3b-16 to define these terms to mean any organization, association, or group of persons that: (1) brings together the orders of multiple buyers and sellers; and (2) uses established, nondiscretionary 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.⁸⁷ As a result, ATSs fell within the definition of an exchange, whereas they had not before issuance of the ATS Release. The Commission then gave existing ATSs the choice to register as an exchange, or to register as broker-dealer and comply with new Regulation ATS.88

ATSs that opt to register as an exchange would be fully incorporated into the NMS. So For ATSs that opt to be regulated as broker-dealers pursuant to new Regulation ATS, their regulatory obligations correspond to the percentage of volume they transact in covered securities (generally, listed or NASDAQ securities). Regulation ATS requires an ATS with five percent or more of the trading volume in any covered security during four of the last six months to display the NBBO on the NMS. Moreover, Regulation

⁸⁵ See id. at 8.

⁸⁶ Exchange Act § 3(a)(1). 15 U.S.C. § 78c(a)(1) (1994).

⁸⁷ See 17 C.F.R. § 240.3b-16(a) (2000). In new Rule 3b-16, the Commission excluded traditional broker-dealer activities. The new Rule 3b-16 expressly excludes "the following systems from the revised interpretation of 'exchange': (1) systems that merely route orders to other facilities for execution; (2) systems operated by a single registered market maker to display its own bids and offers and the limit orders of its customers, and to execute trades against such orders; and (3) systems that allow persons to enter orders for execution against the bids and offers of a single dealer." 17 C.F.R. § 240.3b-16 (2000).

⁸⁸ See ATS Release, supra note 81, at 8-10. Regulation ATS is found at 17 C.F.R. § 242.300-303.

⁸⁹ See id. at 1.

⁹⁰ See id. at 9-11.

⁹¹ See id. at 10. Pursuant to Regulation ATS, a system with less than five percent of the trading volume in all securities it trades is required only to: (1) file with the Commission a notice of operation and quarterly reports; (2) maintain records, including an audit trail of transactions; and (3) refrain from using the words "exchange," "stock market," or similar terms in its name. See id.

ATS requires ATSs with this level of volume also to display the NBBO of institutional orders on their systems. These ATSs must comply with the rules governing execution priorities and obligations that apply to members of a registered exchange or national securities association to which the ATS is linked.⁹² ATSs with twenty percent or more of the trading volume in any single security are subject to access requirements similar to those imposed upon an exchange within the NMS.⁹³

In summary, the existing structure of recent Commission pronouncements on the matter of regulation of the global securities market vis-à-vis the Internet is: (1) the Regulation of Exchanges Release presents the question of how global markets should be regulated and suggests expansion of the NMS to global market linkages by proposing registration of broker-dealer access providers and SIPs; (2) the ATS Release defines various types of domestic electronic trading systems and suggests that some be regulated as part of the NMS; and (3) the Internet Release creates a very narrow and territorial safe harbor for foreign exchanges by utilizing the Targeting Approach. However, the Internet Release leaves open an important issue, stating that the "Commission is currently considering the question of under what circumstances a foreign market that provides the ability in the United States for a U.S. person to trade directly in the market must register as a U.S. exchange."

6. The Ongoing Debate Over the National Market System

The NMS presents several issues that have been debated on a domestic level, especially leading up to the 1975 Amendments, when the Market 2000 Study was released, and during the development of the ATS Release. The issues under debate are market consolidation-fragmentation, payment for order flow, and transparency. This Section of the essay provides an overview of these relevant issues from a recent Survey. This essay summarizes these issues in order to illustrate that the listing of domestic securities on a foreign exchange, such as the NASDAQ Ten being traded on the EASDAQ, presents serious inefficiencies due to market fragmentation. Although these issues concerning the NMS remain unresolved at a domestic level, they are clearly problematic when viewed from a global perspective.

⁹² See id. at 9-10.

⁹³ Such ATSs must: (1) grant or deny access based on objective standards established by the trading system and applied in a non-discriminatory manner; and (2) establish procedures to ensure adequate systems capacity, integrity, and contingency planning. *See id.* at 10-11.

⁹⁴ Internet Release, *supra* note 7, at n.58 (citing the Regulation of Exchanges Release, *supra* note 8).

⁹⁵ See Survey, supra note 24, at 19-35, 38-49.

(a) Consolidation-fragmentation

The consolidation-fragmentation debate derives from the inherently diametric effects of a multi-market trading environment. Such a trading environment promotes efficiency through competition among markets, but multiple market centers also harm liquidity due to the fragmentation of order flow. The primary objection to market fragmentation is straightforward—the greater the fragmentation of orders, the less likely they are to interact. The result is reduced trading volumes and liquidity, and increased price impact of trades and bid-ask spreads. Moreover, one market center has observed that market fragmentation reduces the likelihood of obtaining "best execution" for investors' orders. Finally, other commentators have observed that relative price discovery and transparency among various market centers may cause a free-rider problem for market centers with high standards.

Despite these views, there has existed support for the NMS among the Commission and its staff. The Market 2000 Report takes a favorable view of efficiencies and service improvements promoted by market competition. ¹⁰⁰ In addition, scholarly support exists for the proposition that intermarket competition promotes innovation and the improvement of service for investors. ¹⁰¹ Another commentator has pointed out that ancillary trading

⁹⁶ See Yakov Amihud & Haim Mendelson, A New Approach to the Regulation of Trading Across Securities Markets, 71 N.Y.U. L. Rev. 1411, 1434 (1996). Market fragmentation has been defined as the inability of an order in one market to interact with an order in a competing market. See Hans Stoll, Principles of Trading Market Structure, 6 J. Fin. Services Res. 75, 92 (1992). A consolidated market has been described as one in which all orders interact regardless of who enters the orders. See Mendelson & Peake, supra note 27, at 454.

⁹⁷ See Amihud & Mendelson, supra note 96, at 1434-35.

⁹⁸ See Letter from William H. Donaldson, Chairman and Chief Executive Officer, New York Stock Exchange, to Jonathan G. Katz, Secretary, SEC (Nov. 24, 1992) (commenting on Market 2000 Study); MARKET 2000 REPORT, supra note 42, at VII-12. The Commission has stated that "[i]n its purest form, best execution can be thought of as executing a customer's order so that the customer's total cost or proceeds are the most favorable under the circumstances." Payment for Order Flow, Exchange Act Release No. 34-34,902, 57 SEC Docket 2,315, at 2,320 n.27 (Oct. 27, 1994). The Third Circuit went even further in Newton by stating "the broker-dealer is expected to use reasonable efforts to maximize the economic benefit to the client in each transaction." Newton v. Merrill, Lynch, Pierce, Fenner & Smith, Inc., 135 F.3d 266, 270 (3d Cir. 1998) (en banc). However, the Commission never has stated that a broker-dealer is bound exclusively by price considerations in satisfying its best execution obligations. See Order Execution Obligations, Exchange Act Release No. 34-37,619A, 62 SEC Docket 2,083, at 2,135-38 (Sept. 6, 1996).

⁹⁹ See Amihud & Mendelson, supra note 96, at 1438.

¹⁰⁰ See Market 2000 Report, supra note 42, at III.

¹⁰¹ See Maureen O'Hara & Jonathan Macey, Regulating Exchanges and Alternative Trading Systems: A Law and Economics Perspective, at http://sec.gov/rules/concept/S71679/ohara/htm (last visited Apr. 23, 2000); see also Hans Stoll, The Causes and Consequences of the Rise in Third Market and Regional Trading, 19 J. CORP. L. 509, 516 (1994).

centers would not receive their current amount of order flow from primary markets were they not efficient. 102

The empirical evidence on the consolidation-fragmentation debate has yielded mixed conclusions. Statistical studies of the relative quality of price execution on markets linked by the ITS¹⁰⁴ and studies of NYSE execution compared to OTC and regional market execution on the Staff's positive assessment of the NMS's efficiency. Additional studies find that ancillary markets free-ride off the price discovery of major market centers. However, other market studies have concluded that market fragmentation has reduced the cost of trading 107 and that trading on ancillary exchanges provides services to investors that are not available in primary markets.

(b) Payment for Order Flow

The debate over payment for order flow ("POF") has been described as "one of the most intractable and pressing issues in securities regulation to-day." The multi-market environment of the NMS permits the existence of POF, a practice in which a securities market will pay a broker between one and three cents for each order a broker routes to it. While one group of commentators deride these payments as "kickbacks," another camp has argued that POF is merely a symptom of the competition between market centers rather than broker-dealers and is a natural outgrowth of this competition. An additional member of this camp has noted that a pri-

¹⁰² See Stoll, supra note 101, at 514.

¹⁰³ See Survey, supra note 24, at 25-29.

¹⁰⁴ See generally Charles Lee, Market Integration and Price Execution for NYSE-Listed Securities, 48 J. Fin. 1009 (1993).

¹⁰⁵ See generally Blume & Goldstein, supra note 39.

¹⁰⁶ See generally Kenneth L. Garbade & William L. Silber, A Study of Dually-Traded Securities, 61 REV. ECON. & STAT. 455 (1970); Joel Hasbrouck, One Security, Many Markets: Determining the Contribution to Price Discovery, 50 J. Fin. 1175, 1197 (1995).

¹⁰⁷ See Thomas H. McInish & Robert A. Wood, Competition, Fragmentation and Market Quality, in The Industrial Organization and Regulation of the Securities Industry 63 (Andrew W. Lo, ed., 1996).

¹⁰⁸ See Lee, supra note 104, at 1012.

¹⁰⁹ Ferrell, supra note 27, at 1. See generally Note, The Perils of Payment for Order Flow, 107 HARV. L. REV 1675-92 (1994).

¹¹⁰ See Ferrell, supra note 27, at 1.

¹¹¹ See id.

¹¹² See Survey, supra note 24, at 30 (citing Lois Lightfoot, Peter Martin, Mark Peterson, and Eric Sirri, *Preferencing and Market Quality on U.S. Equity Exchanges*, Paper presented at NBER Conference (July 17, 1997)).

¹¹³ See id. at 31 (citing Inducements For Order Flow, A Report To the Board of Governers, National Association of Securities Dealers, Inc. 25 (1991)).

mary market in a security would also offer POF were it efficient for the primary market to do so. 114

Aside from the criticism that POF may represent a breach of fiduciary duty by a broker-dealer to its clients, it clearly presents problems of efficiency. Professor Ferrell has correctly observed that the NYSE is systematically unable to offer POF; therefore, it is disadvantaged by non-price competition. Consequently, he argues that dealers will avoid routing orders to auction markets, notwithstanding the opportunity to obtain better price execution for a client. Even if all markets could offer POF, moreover, market distortion in order routing would still exist due to the inability of markets to quickly adjust the size of their POF payments to reflect relative market efficiencies. Finally, he argues that the inferior execution resulting from POF discriminatorily effects small, unsophisticated investors.

As with the consolidation-fragmentation debate, empirical studies on POF produce divergent conclusions. One study found that POF tended to divert the orders of uniformed investors from the NYSE to a regional exchange or the OTC market. In contrast, another study of trading data found that the conclusion that ancillary markets "divert informationless order flow away from the NYSE" may be "premature."

(c) Transparency

The issue of transparency within the NMS has remained a subject of study. Researchers have focused on the dissemination of information to market participants concerning the size, type, and source of orders and trades. One set of analyses has focused on the degree to which asymmetric information increases bid-ask spreads within the NMS using theoretical and empirical methodologies. Other studies of transparency compare order

¹¹⁴ See Stoll, supra note 101, at 515.

¹¹⁵ See Ferrell, supra note 27, at 6-9.

¹¹⁶ See id. at 29-36.

¹¹⁷ See id. at 35-36; see also Survey, supra note 24, at 33-34; John C. Coffee, Comment, in The Industrial Organization and Regulation of the Securities Industry, supra note 107, at 63 (commenting on McInish & Wood, supra note 107).

Role of Purchased Order Flow, 51 J. Fin. 811 (1996) (concluding that significant differences exist between the information content in orders executed on the N.Y.S.E. and the Cincinnati Stock Exchange, and that these differences are consistent with "cream skimming").

¹¹⁹ Robert H. Battlio, Third Market Broker-Dealers: Cost Competitors or Cream Skimmers? 52 J. Fin. 341, 344 (1997).

¹²⁰ See Survey, supra note 24, at 38-49 (collecting sources).

¹²¹ See, e.g., Thomas E. Copeland & Dan Gala, Information Effects on the Bid-Ask Spread, 38 J. Fin. 1457 (1983); Lawrence R. Glosten, Components of the Bid-Ask Spread and the Statistical Properties of Transaction Prices, 42 J. Fin. 1293 (1987); Hans R. Stoll, Inferring the Components of the Bid-Ask Spread: Theory and Empirical Evidence, 44 J. Fin. 115, 132 (1989).

and dealer markets within the NMS.¹²² Another researcher has studied the effects of transparency on the efficiency, bid-ask spreads, volatility, and liquidity of a market.¹²³ Notwithstanding the substantial research on the issue, no unequivocal conclusion has emerged concerning the transparency benefits of the NMS. The reason for the nebulous results lies in the infinite variety of independent variables inherent in the concept of transparency. The author of the Survey asserted:

In conclusion, the foregoing survey of the literature on market transparency reveals that transparency is a much more complex issue than is generally assumed by market regulators and commentators. The net welfare effects of greater transparency are ambiguous. As the literature reveals, transparency has different effects depending on the particular investor, market, and security at issue. Therefore, a one-size-fits-all approach to transparency regulation is undesirable. 124

(d) Conclusion

The NMS has created cumbersome regulations whose optimality has neither been proved nor discredited. As a result of the recent Releases responding to new technologies, the SEC has made the NMS system of regulation even more complicated by creating fine distinctions among participants: broker-dealers, access providers, SIPs, ATSs, and exchanges. However, these Releases do not address issues connected with fragmentation, POF, and transparency when domestic issues trade on foreign exchanges.

B. Market Background: A Global Securities Marketplace

This Section describes the extent that securities markets have become "globalized" during the last decade. A review of this phenomenon is important because it contrasts sharply with the Targeting Approach. Moreover, the extraordinary developments in global securities markets contrast sharply with the SEC's incremental modifications to the NMS. These developments are the increase in transnational equity trading and listing, the consolidation of physical markets, and the proliferation of ATSs.

1. Globalization of Equity Markets

In 1998, the U.S. capital markets accounted for approximately onehalf of global market capitalization of domestic companies. According to the International Federation of Stock Exchanges ("FIBV"), the ten largest

¹²² See Marco Pagano & Ailsa Roell, Transparency and Liquidity: A Comparison of Auction and Dealer Markets with Informed Trading, 51 J. Fin. 579 (1996); Ananth Madhavan, Security Prices and Market Transparency, 5 J. Fin. Intermed. 255 (1996).

¹²³ See Madhavan, supra note 122.

¹²⁴ See Survey, supra note 24, at 49.

exchanges by market capitalization for common and preferred shares of domestic companies were:

| The 10 largest stock markets in the world by market capitalization of domestic companies in 1998 (US\$ billion) | Table 1 | |
|---|---------|---|
| NYSE NASDAQ Tokyo London Germany Paris Switzerland Amsterdam Italy Canada (Toronto) | | 10,271,899.8 2,527,970.0 2,439,548.8 2,372,738.1 1,093,961.9 991,483.8 689,199.1 603,182.2 569,731.8 543,394.0 |
| Global Total Source: FIBV [†] | | 25,683,171.1 |

[†] See FIBV Statistics, at http://fibv.com/statistics.asp (last visited Mar. 23, 2000) (excluding closed-end funds, rights, warrants, and convertibles).

The following table provides valuable perspective on the international character of the U.S. equity markets. Although the percentage of foreign listings on the U.S. markets is small relative to the percentage on certain other markets, the large size of the U.S. equity markets relative to the rest of the world make them very international in character.

Table 2

| The 10 larges | st stock mar | <u>kets in the w</u> | <u>orid</u> | | | | |
|-------------------|------------------|----------------------|-------------|-----------------|-------|---------------------|--|
| by average of | | | | | | | |
| company tra | | | | | | | |
| (US\$ million for | or average d | | | | | | |
| | | <u>F</u> orelgn | | | | | |
| | | Turnover | | Mumba | | 4007 | |
| | 4007 | As % Of | | Numbe | | 1997 | |
| | 1997 1997 | | | Foreig Compa | | Foreign Listinas | |
| | Average Daily | Average Dally | | Compa | ines | as % of | |
| | Turnover | Turnover | 1986 | 1990 | 1997 | Total | |
| | 14 | 101110101 | | | | | |
| NYSE | 15,829 | 8.4% | 59 | 96 | 355 | 13.5% | |
| NASDAQ | 12,279 | 13.7% | 244 | 256 | 454 | 8.3% | |
| London | 5,451 | 58.1% | 584 | 613 | 467 | 18.6% | |
| Paris | 5,010 | 2.2% | 195 | 226 | 184 | 20.0% | |
| Taiwan | 3,585 | 0.0% | 0 | 0 | 0 | 0.0% | |
| Germany | 2,925 | 4.5% | 181 | 234 | 1,996 | 74.0% | |
| Toyko | 2,455 | 0.2% | 52 | 125 | 60 | 3.2% | |
| Switzerland | 1,559 | 5.0% | 194 | 240 | 212 | 49.5% | |
| Toronto | 836 | 0.2% | 51 | 66 | 58 | 4.1% | |
| Italy | 557 | 0.1% | 0 | 0 | 4 | 1.7% | |
| Source: FIBV | i‡ | | | | | | |

[‡] Reprinted in HAL S. SCOTT & PHILLIP H. WELLONS, INTERNATIONAL FINANCE: TRANSACTIONS, POLICY AND REGULATION 2-17 (7th ed., forthcoming) [hereinafter INTERNATIONAL FINANCE]. Stock market size determined by 1994 Turnover. Average Daily Turnover determined by total turnover divided by 365.

2. Increase of Cross-Border Securities Offerings and Transactions

As Tables 3 and 4 illustrate, the international equity offerings and the market for cross-border equities that became significant in the mid-1980s continue to grow at a dramatic rate. 125

| international | Table 3 | | | | | | |
|---|---------|------|------|------|------|------|------|
| Equity Offerings: 1987-1994 (USD billion) | 4007 | 4000 | 4000 | | 4000 | 4000 | |
| | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
| International Equity Offerings | 20.4 | - | • | • | 25.3 | 36.6 | 58.1 |
| Of which, Dep. Receipts | 4.6 | | • | - | 5.3 | 9.5 | 11.0 |

Source: OECD and IMF.

Source: IMF

| Cross-Border Equity Trading: 1987-1994 (USD billion) | Table 4 | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|
| | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
| Gross Equity Flows | 1,377.8 | 1,562.6 | 1,390.9 | 1,322.5 | 1,404.9 | 2,266.1 | 2,550.0 |
| Cross-exchange Trading | 508.6 | 582.9 | 873.9 | 779.1 | 968.7 | 1,547.5 | 2,000.0 |
| Net Equity Flows | 16.4 | 86.6 | 3.2 | 100.6 | 53.7 | 196.3 | 119.6 |
| Cross-border M&A Activity | 70.9 | 117.5 | 128.4 | 83.7 | 91.0 | 95.1 | 156.2 |

International Monetary Fund, International Capital Markets: Developments, Prospects, and Policy Issues 189 (Aug. 1995), reprinted in SCOTT & WELLONS, supra note [‡], at 21. Data for 1994 is estimated. "Gross Equity Flows" are the sum of all purchases and sales in a foreign security. "Net Equity Flows" indicate new money inflows, the difference between the purchases and the sales of foreign equity. See id.

Organization for Economic Co-operation and Development, Table F.T.-0.a, "International Capital Markets Statistics" (1996), OECD Financial Market Trends (Nov. 1997), and International Monetary Fund, International Capital Markets: Developments, Prospects, and Policy Issues 189 (Aug. 1995), all reprinted in SCOTT & WELLONS, supra note [‡], at 18. "Depository Receipts" include ADRs, GDRs and Rule 144A stock.

¹²⁵ See Scott & Wellons, supra note ‡, at 20.

To provide a further perspective on the internationalization of the U.S. markets, foreign issuers and investors are attracted to the NYSE in substantial numbers, as the facts the NYSE has released indicate. Between 1980 and 1995, the total financial activity by U.S. persons in foreign securities grew from \$53.1 billion to \$2,573.6 billion, representing an increase of over 4700%. 127

3. Consolidation of Physical Securities Markets and the Proliferation of Electronic Trading Systems

Physical securities markets are consolidating. In the United States, this has been a long-term trend. There were 34 stock exchanges in the United States at the passage of the Exchange Act, ¹²⁸ compared to seven market centers at present. In Europe, this consolidation began in the late 1990s and continues to date. Demands by European investors and market participants demanding market consolidation to reduce the costs of trading, clearance, and settlement in an environment of Euro-denominated, cross-border trading have caused this recent trend. ¹²⁹ This consolidation appears to be rapid and sometimes frenetic. In February 2000, for example, the London Stock Exchange and Brussels Exchange announced their interest in merging with another European bourse. ¹³⁰ By March 2000, the plan had changed. Paris Bourse S.A., the Amsterdam Exchange and Brussels Exchange announced their intent to merge into a company called Euronext N.V. ¹³¹ As Table 5 illustrates, there presently exist a number of proposed cross-border alli-

¹²⁶ In 1998, 43 non-U.S. companies were listed on the N.Y.S.E.. This brought the total number of companies to 379—more than three times the number of such companies listed 5 years ago. See http://www.nyse.com/international/internationalco.htm (last visited Mar. 22, 2000). Companies from 48 countries are listed on the N.Y.S.E.. See http://www.nyse.com/content/faqs (last visited Mar. 22, 2000). The global market capitalization of the non-U.S. companies is US \$5.5 trillion. See id.

¹²⁷ See Securities Industry Association, 1996 Securities Industry Fact Book 67 (1996).

¹²⁸ See Senate Comm. on Banking & Currency, Stock Exchange Practices, S. Rep. No. 73-1455, at 5 (1934).

¹²⁹ See London Exchange Signals Its Interest in European Merger, WALL St. J., Feb. 3, 2000, at C22. See generally SCOTT & WELLONS, supra note ‡, at 14-47 to 14-53.

¹³⁰ See London Exchange Signals Its Interest in European Merger, supra note 129, at C22; see also John Carreyrou, Belgian Exchange's 15.2% Drop This Year Fuels Worries Over Small Bourses in the New Europe, WALL St. J., Feb. 16, 2000, at C14. Earlier this year, an alliance of eight European bourses was announced, but the merger has not been completed. See id. But see LSE Abandons Plan to Merge With Frankfurt, WALL St. J., Sept. 13, 2000, at A21.

¹³¹ See French, Dutch and Belgian Bourses Set Plans to Join Forces as New Company, WALL St. J., Mar. 20, 2000, at B14. Under this plan, equities would be traded in Paris, derivatives would be traded in Amsterdam, and clearing and settlement would occur in Brussels. See id.

ances.¹³² Finally, as described in the Introduction to this essay, the EASDAQ is operating as a pan-European exchange.¹³³

In contrast to physical exchanges, the number of electronic trading markets is proliferating. As noted *supra* Section II(A)(5), electronic exchanges handle 4% of orders in NYSE-listed securities and 20% of all order flow in the OTC market. In its recent request for comment, the Commission noted that in the market for NASDAQ equities trading interest is divided among various market centers. Several ATSs operate electronic limit order books for the trading of NASDAQ equities. In September 1999, nine of these ATSs collectively accounted for 28.0% of trades in NASDAQ issues. See Table 5, *infra*.

C. Technological Background: Securities Market Activity on the Internet

1. Basic Architecture of the Internet

This Section describes the technical background of the Internet, because the architecture of the Internet is part and parcel with the regulatory issues concerning its use. The titles of several recent publications involving securities transactions on the Internet have questioned whether securities activity on the Internet is, or can be, regulated: Who's Watching?: It's a wild world out there in cyberspace, and the investment police can't keep up with it; 136 Taming the Frontier?: An Evaluation of the SEC's Regulation of Internet Securities Trading Systems; 137 and As Huge Changes Roil the Mar

¹³² See SECURITIES LAW & THE INTERNET, supra note 70, at 17. But see WALL St. J., Mar. 20, 2000, at B14 (describing mergers illustrated in Table 5 as being "considered dead in all but name"). For further detail on the evolving alliances among Europe's trading centers, see SCOTT & WELLONS, supra note [‡], at 14-49 – 14-53 (collecting sources); see also Sylvia Ascarelli, Link to Nasdaq Possible in Merger of European Bourses, WALL St. J., Apr. 24, 2000, at A22 (reporting that a possible merger between the London Stock Exchange and Deutsche Börse could include a linkage to the NASDAQ).

¹³³ See The Pan-European Exchange, supra note 1.

¹³⁴ See Self-Regulatory Organizations; Notice of Filing of Proposed Rule Change by the New York Stock Exchange, Inc. to Rescind Exchange Rule 390; Commission Request for Comment on Issues Relating to Market Fragmentation, Release No. 34-42450, 71 SEC Docket 1702, at 1706 (February 23, 2000) [hereinafter Fragmentation Release].

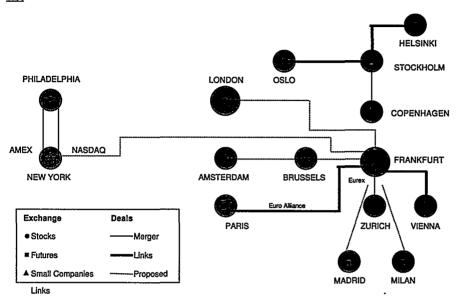
¹³⁵ See id. Nevertheless, the Commission believes that the U.S. markets for listed equities currently reflect a fairly low degree of fragmentation. As evidence, the Commission cites that in September 1999, 74.4% of the trades and 83.9% of the share volume in N.Y.S.E.-listed equities were executed on the N.Y.S.E., and that approximately 68.7% of the trades and 70.5% of the share volume in Amex-listed securities were executed on the Amex. See id. at 7. The Commission correctly observed that "these percentages could change after the rescission of off-board trading restrictions such as N.Y.S.E. Rule 390." Id.

¹³⁶ See Andrew Fraser, Who's Watching?: It's a wild world out there in cyberspace, and the investment police can't keep up with it, WALL St. J., June 14, 1999, at R17.

¹³⁷ See Andrew Thompson, Taming the Frontier?: An Evaluation of the SEC's Regulation of Internet Securities Trading Systems, 1999 COLUM. BUS. L. REV. 165 (1999).

Table 5

Europe's Emerging Exchange: 1998



Source: Financial Times, July 8, 1998 reprinted in SECURITIES LAW & THE INTERNET 17.

ket, Some Ask: Where is the SEC?¹³⁸ This Section of the essay will respond that Internet-based securities markets are eminently subject to regulation, although the Commission utilizes the tools at its disposal to do so in a very general manner.

Communications through the Internet travel through the World Wide Web ("Web") in the form of bulletin boards, e-mail and personal broadcast networks. A person with a computer and access to the Web can make Internet communications from anywhere in the world. The Web, quite simply, "is a series of documents stored in different computers all over the Internet." Approximately 304 million people currently use the Internet, and the number of host computers has been estimated at 40 million.

Hypertext markup language ("HTML") allows Internet users to move rapidly from one of the countless documents on the Web to another. Lach document on the Web has a unique HMTL address that corresponds to the computer storing it. If the Internet user knows the address of a document that she wishes to view, she can access it by typing its address into her Web browser. Internet users also can move from a viewed document to another through the use of a hyperlink. A hyperlink is usually highlighted text or a box describing the contents of other documents. If the viewer of one document wants to view the contents of another document described by the highlighted text or box, then she simply "clicks" on the highlighted text or box, which automatically sends a request for the Internet user to the HTML address of that document.

¹³⁸ See Scot J. Paltrow et al., Beat Cop: As Huge Changes Roil the Market, Some Ask: Where is the SEC?, WALL St. J., Oct. 11, 1999, at A1.

¹³⁹ For information on the use, structure and history of the Internet, see Barry M. Leiner et al., A Brief History of the Internet, at http://info.www.org/internet/history (last visited Mar. 23, 2000). See generally Developments In the Law. The Law of Cyberspace, 112 HARV. L. REV. 1574, 1577-80 (1999) [hereinafter Developments].

¹⁴⁰ Individuals access the Internet through a computer that has a direct link to the Internet or through a modem that connects a remote user via a telephone line to the computer of an Internet Service Provider [hereinafter IPS] that has a direct link to the Internet. *See* ACLU v. Reno, 929 F. Supp. 824, 832-33 (E.D. Pa. 1996).

¹⁴¹ *Id*.

¹⁴² For current statistics on Internet use, see http://www.nua.ie/surveys/how_many_onlin e/index.htm (last visited Apr. 20, 2000).

¹⁴³ See Developments, supra note 139 at 1579 n.16.

¹⁴⁴ See generally id. at 1579-80.

¹⁴⁵ See generally id. at 1580.

2. Explosive Growth of Securities Transactions Over the Internet

The growth of investing over the Internet has exploded. In 1999, online brokerage assets totaled about \$415 billion, an amount that is estimated to grow by more than sevenfold to \$3 trillion in 2003. The 3.7 million online accounts established by 1997 increased to 9.7 million accounts by the second quarter of 1999. These accounts have become more active, from executing approximately 100,000 trades per day in the second quarter of 1996 to over one-half million in the second quarter of 1999. The percentage of equity orders transmitted on-line has grown to 15.9 percent of all equity trades in the first quarter of 1999.

In response to the dramatic increase in securities-related activity over the Internet, the Technical Committee of IOSCO approved the Report of IOSCO's Internet Task Force ("IOSCO Internet Report") on September 28, 1998. The IOSCO Internet Report succinctly describes the characteristics of the Internet that provide new opportunities for investors and the securities industry, but that also create new challenges for regulators. The five characteristics of the Internet most relevant to this essay are that it provides: (a) a widespread and instantaneous means of communication; (b) at low cost; (c) which is interactive in nature; (d) that occurs in a decentralized medium; and (e) that is subject to specific forms of regulation.

(a) Widespread and Instantaneous Communication

First, the Internet creates a platform for widespread and simultaneous communication. Due to the HTML format, the Internet provides a vast audience for the offer of securities, investment advice, and stock exchange services. Issuers, securities service providers, and stock exchanges can establish easily a Web site or electronic bulletin board on which a global audience can obtain information almost instantaneously. Market participants or exchanges commonly provide quotations for securities on their Web sites. Securities market participants and investors can also disseminate information over the Internet through a File Transfer Protocol ("FTP"), which transmits files rather than messages, between computers or through electronic messages ("e-mail").

¹⁴⁶ See SEC, Special Report of Commissioner Laura Unger to the Commission, On-Line Brokerage: Keeping Apace of Cyberspace (Nov. 1999), at http://www.sec.gov (last visited Mar. 23, 2000) [hereinafter Keeping Apace of Cyberspace]; Isaac C. Hunt, The Internet and the Securities Markets, Speech at the XXIV Annual Conference of the IOSCO, (May 22-29, 1999) (citing recent statistics on internet trading); see also Greg Ip & Rebecca Buckman, The Web Snares Investors, Shifting Wall Street's Focus, WALL ST. J., Jan. 3, 2000, at R6.

¹⁴⁷ IOSCO, Securities Activity on the Internet Report (Sept. 1998), *at* http://www.iosco.org/docs-public/1998-internet_security.html (last visited Mar. 23, 2000) [hereinafter IOSCO Internet Report].

(b) Low Cost Communication

Second, the Internet permits the dissemination of information to a domestic or international audience at very low cost, typically the telecommunications cost of connecting to a local ISP and the fee charged by the ISP. These low costs exponentially increase the amount of information that is available to investors globally.

(c) Interactive Communications

Third, the Internet can be an interactive form of communication. The Internet provides a platform on which an investor can use hyperlinks to read a solicitation for the sale of a security, effectuate an investment decision, transmit an order, receive confirmation, and pay for securities by connecting once to an ISP.

(d) Decentralized Medium of Communication

The fourth characteristic of the Internet described by the IOSCO Internet Report deserves further explanation due to its technological basis. The Internet is a generally "open" network that does not have a centralized location from which it can be controlled. This is because, as noted above, the architecture of the Internet consists of a decentralized system comprised of millions of computers on the periphery of the system that hold documents and execute the system's operations. Once one has access to the Internet, one has access to all HTMLs, except for those limited to specific users in possession of the appropriate access code.

The decentralized nature of the Internet becomes apparent by a summary of its history. 148 The ARPANet was established pursuant to a federally funded communications project in the late 1960s. ARPANet aimed to establish a communications loop for computers in remote locations to transmit data to each other. The architects of the ARPANet sought to create a "self-maintaining series of redundant links between computers and computer networks . . . designed to allow vital research and communications to continue even if portions of the network were damaged, say, in a war." 149 In the years following the creation of the Internet, smaller networks, such as BITNet, CSNet, and Usenet, came into existence and became compatible with the ARPANET. The Internet is a result of the linkage of these networks into a global communications network of over 40 million computers.

Due to the decentralized architecture of the Internet, it is easy to understand why some commentators have concluded that it is not possible to

¹⁴⁸ See generally Leiner et al., supra note 139; see also Developments, supra note 139, at 1578-79.

¹⁴⁹ ACLU v. Reno, 929 F. Supp. 824, 831 (E.D. Pa. 1996).

regulate activity over the Internet.¹⁵⁰ In fact, the non-jurisdictional medium of the Internet, in which communicators are identified by HTML addresses, rather than geographic locations, makes the Internet difficult for sovereigns to regulate.¹⁵¹ The corollary of this argument, that the separation of real space from cyberspace means that sovereigns should defer to self-regulation by cyberspace participants,¹⁵² however, has not withstood empirical scrutiny.¹⁵³

(e) The SEC's Ability to Regulate by Code

This essay adopts the position that the SEC can and should regulate securities transactions over the Internet through a *code-based* approach. As Professor Lessig explains:

In real space, we recognize how laws regulate—through constitutions, statutes, and other legal codes. In cyberspace, we must understand how code regulates—how the software and hardware that make cyberspace what it is *regulate* cyberspace as it is. As William Mitchell puts it, this code is cyberspace's "law." *Code is law.*¹⁵⁵

Certainly, "[s]ome architectures of cyberspace are more *regulable* than others; some architectures enable better control than others." The concept of "open" versus "closed" communications architecture is significant. The Internet lies at the open extreme of the spectrum, as it is a system of protocols that are non-proprietary and that require no personal identification for a person to access. At the opposite extreme lies a closed

¹⁵⁰ See David R. Johnson & David Post, Law and Borders — The Rise of Law in Cyberspace, 48 STAN. L. REV. 1367, 1375 (1996) (concluding that: "The rise of an electronic medium that disregards geographical boundaries throws the law into disarray by creating entirely new phenomena that need to become the subject of clear legal rules but cannot be governed, satisfactorily, by any current territorial based sovereign.").

¹⁵¹ As Johnson and Post put it, cyberspace exists "everywhere and nowhere in particular, and only on the Net." *Id.* at 1375; see also James D.A. Boyle, Foucault in Cyberspace: Surveillance, Sovereignty, and Hard-Wired Censors, 66 U. Cin. L. Rev. 177, 178 (1997) (stating that "the technology of the medium, the geographical distribution of its users, and the nature of its content all make the Internet specially resistant to state regulation").

¹⁵² See Johnson & Post, supra note 150, at 1393.

¹⁵³ See, e.g., Timothy S. Wu, Note, Cyberspace Sovereignty? — The Internet and the International System, 10 Harv. J.L. & Tech. 647, 654-55 (1997) (describing examples of Internet regulation in China and Singapore); Boyle, supra note 151, at 190 (stating governments regulate the Internet through "privately deployed, materially based, technological methods of surveillance and censorship").

¹⁵⁴ This position contrasts with that of Johnson and Post. The foundation of this position is set forth in Professor Lessig's recent work LAWRENCE LESSIG, CODE AND THE OTHER LAWS OF CYBERSPACE (1999) [hereinafter CODE].

¹⁵⁵ See id. at 6 (citing William J. Mitchell, City of Bits: Space, Place and the Infobahn (1995) (emphasis in original).

¹⁵⁶ Id. at 20 (emphasis added).

¹⁵⁷ See id. at 27; see also id. at 46-105 (describing the open architecture of the Internet).

proprietary network, which tightly controls access only to those with the proper access code or even a proprietary terminal. To appreciate the vast difference between open and closed systems, consider the regulatory implications for a transnational stock exchange that permits remote trading privileges to only those with one of the exchange's terminals and the appropriate access codes versus an exchange that would expose an order from any individual with Internet access. As discussed further, exchanges commonly control access by the former architectural design, because the latter architecture is too open to support a workable securities exchange.

In contrast to regulating a system by means of access codes, there is no simple way to regulate the Internet because it is not possible to determine the identity of users, to locate their geographical location, or to classify the data that they want to access. Simply put, "there is no simple way to zone cyberspace." This inherent limit derives from the Internet's foundation upon simple protocols, known as the TCP/IP suite. The TCP/IP suite includes the protocols for receiving information from the Web, called Internet Protocols ("IP"). The IP, however, only includes two pieces of information, the HTML of the information, that is, the address of the computer from which the information is being sent, and the address of the destination. The architecture of the Internet was not designed to include information such as the geographic location of the Internet user or whether the Internet user is, for example, a "qualified institutional buyer."

This essay attempts to set forth the architectural outline of the necessary elements of a global, Internet-based securities market, and an example of how the Commission could utilize code in efforts to exercise traditional objectives of securities regulation over such a market. Indeed, the SEC already regulates code in a very general form by promulgating certain standards for the systems architecture of market participants.¹⁶⁰ For example,

¹⁵⁸ Id. at 28.

¹⁵⁹ See Securities Act of 1933, 17 C.F.R. § 230.144A(a)(1) (2000) (defining "qualified institutional buyer").

¹⁶⁰ The SEC possesses ample statutory authority over the code of market participants. For example, Exchange Act Section 6(b)(1) provides that an exchange shall not be registered unless the Commission determines that the "exchange is so organized and has the capacity to carry out the purposes of this Act." 15 U.S.C. § 78f(b)(1) (Supp. 2000) (emphasis added). In addition, Exchange Act Section 3(a)(37) defines "records" as "accounts, correspondence, memorandums, tapes, discs, papers, books, and other documents or transcribed information of any type, whether expressed in ordinary or machine language." 15 U.S.C. § 78c(a)(37) (1994) (emphasis added). Section 17(a)(1) of the Exchange Act provides that "[e]very national securities exchange, member thereof, broker or dealer who transacts business in securities through the medium of any such member, registered securities association, registered broker or dealer, registered municipal securities dealer, registered information processor, registered transfer agent, and registered clearing agency and the Municipal Securities Rulemaking Board shall make and keep for prescribed periods such records...as the Commission prescribes as necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act." 15 U.S.C. § 78q(a)(1) (1994); see also

Investment Company Act Rule 17f-5(c)(1)(i) requires an "Eligible Foreign Custodian" of a registered investment company to subject foreign assets to reasonable care, in consideration of all relevant factors, including "security and data protection practices." In 1997, the SEC amended Exchange Act Rule 17a-4 by modifying the record keeping requirements for broker-dealers to permit the use of electronic medium. Rather than specifying the type of storage technology a broker-dealer must use, the amended rule prescribed the architectural standards that electronic storage media must satisfy. In particular, amended Rule 17a-4 permits broker-dealers to use "optical storage technology," which is defined as technology that "allows for digital data recording in a non-rewritable, non-erasable format.... Non-rewritable optical storage records digital information by employing a laser heat source to burn a pattern on a metallic film on a disk surface that can hold billions of bytes of data." 163

Another example of regulation by code was the Commission's treatment of the "Y2K Problem," the possibility that the computer systems of broker-dealers would read January 1, 2000 as January 1, 1900, or cause systems failure. The Commission amended Exchange Act Rule 17a-5 to require covered broker-dealers to file Form BD-Y2K, which sets forth a summary of the efforts of the broker-dealer's personnel to solve the Y2K Problem at the firm. On Form BD-Y2K, a broker-dealer must report material exceptions identified during internal and external systems testing that were unresolved. The SEC left to the discretion of broker-dealers the determination of a material exception.

With regard to exchanges, the Commission has a long history or setting standards for computer capacity in its Policy Review Statements, including capacity estimates, the use of stress tests, and the evaluation of third-party

¹⁵ U.S.C. § 80a-30(a)(1) (1994) (analogous provision for investment companies); 15 U.S.C. § 80b-4 (1994) (analogous provision for investment advisers).

The Commission also has literal statutory authority over those who make Internet communications from the United States pursuant to the securities laws' common jurisdictional requirement that the subject of SEC regulation use "any means or instrumentality of interstate commerce or of the mails." E.g., Exchange Act, 15 USC § 78j (1994). The Exchange Act defines "interstate commerce" as "trade, commerce, transportation, or communication among the several States, or between any foreign country and any State, or between any State and any place or ship outside thereof." 15 USC § 78c(a)(17) (1994) (emphasis added).

¹⁶¹ 17 C.F.R. § 270.17f-5(c)(1)(i) (2000).

¹⁶² Reporting Requirements for Brokers or Dealers Under the Securities Exchange Act of 1934, Release No. 34-38245, 63 SEC Docket 1982 (Feb. 5, 1997).

¹⁶³ Securities Exchange Act of 1934, 17 C.F.R. § 240.17a-4 (2000).

¹⁶⁴ See SEC, Reports to be Made by Certain Brokers and Dealers, Release No. 34-40162, 67 SEC Docket 950 (July 2, 1998). The Release was amended Exchange Act Rules by adding new subparagraph (5) to Rule 17a-5(e).

¹⁶⁵ See id.

relationships. 166 Regarding broker-dealers, the Staff has also set forth general guidance on systems capacity in a Staff Bulletin. 167 The Staff Bulletin noted that in addition to average-to-heavy order volumes, registrants should have the capacity to handle exceptional volumes that are several times the average. The Staff Bulletin emphasized that broker-dealers should conduct capacity planning regularly and provide alternative backup or investor access points during periods of exceptional volatility. Finally, the Staff Bulletin warned that a registrant that accepts orders without adequate systems capacity may be in violation of the federal securities laws.

Most recently, the Commission proposed new rules. 15b7-2 and 17Ad-20, which continued the Commission's pattern of promulgating standards for systems in general fashion. 168 Pursuant to the proposed rules, registered broker-dealers and transfer agents must establish and maintain operational capability to ensure the prompt and accurate entry of customer orders, and the execution, comparison, allocation, clearance, and settlement of securities transactions. Proposed Rule 15b-7 defines the term "operational capability" to include the following broker-dealer systems operations: controls in data center computer operations, such as facilities management; controls regarding infrastructure and physical hazards; and staffing and operations practices of the data center. In addition, the definition includes data security practices and policies; controls, practices, and policies to ensure adequate development and maintenance of information systems; capacity planning and testing to ensure the continual capability of systems to handle varying amounts of data in a timely fashion; and contingency planning. In this regard, the Commission showed particular interest in the plans and procedures to resolve systems failures and to ensure investor protection in the event of systems failure. The proposed rule states clearly that it does not address an occasional delay or outage; however, as the rule only sets forth general standards, it is uncertain how severe a systems outage must be to prompt a Commission enforcement action.

3. Multiple Transmission Media for Order Flow

Professor Tamar Frankel correctly observed that the advent of corporate disclosure over the Internet merely changes the medium through which

¹⁶⁶ See, e.g., SEC, Automated Systems of Self-Regulatory Organizations ("ARP I"), Release No. 34-27445, 44 SEC Docket 1582 (Nov. 16, 1989); Automated Systems of Self-Regulatory Organizations ("ARP II"), Release No. 34-29185, 48 SEC Docket 1345 (May 9, 1991).

167 See SEC Staff Bulletin No. 8 (MR) (Sep. 9, 1998).

Conshibity Requirements

¹⁶⁸ See SEC, Operational Capability Requirements of Registered Broker-Dealers and Transfer Agents And Year 2000 Compliance, Release No. 34-41142, 50 Fed. Reg. 64, 12,127 (Mar. 5, 1999).

disclosure is made, not necessarily the content.¹⁶⁹ The same is true of the medium of transmission for order flow. Investors and market participants have been using a variety of cross-border telecommunications media for some time. These media include telephone, facsimile, propriety data linkages, and the Internet.¹⁷⁰ Table 6, below, illustrates how intermediated trades require two communications linkages. The first links the investor to the intermediary, one or more broker-dealers. The second links the intermediary to the exchange (assuming that the trade is not internalized). Investors have a variety of communications media at their disposal for the first linkage. An investor might transmit an order to a broker-dealer by visiting a brokerage office in person, telephoning, or sending a facsimile. As noted above, the trading environment has changed recently due to the increased use of the Internet for the first linkage.

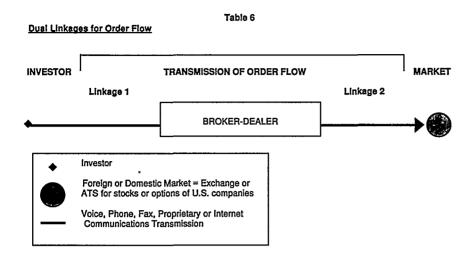
For the second linkage, from the broker-dealer to the exchange, two general types of transmission media exist. Many markets use telephone to send voice instructions to the exchange floor. The Stock Exchange of Hong Kong Stock, Jakarta Stock Exchange, Philippine Stock Exchange, Stock Exchange of Singapore, and the Chicago Board of Options Exchange use this telephone method.¹⁷¹ Other equity markets only employ transmission via proprietary terminals. These markets include the Stock Exchange of Thailand, the PFTS OTC Market of Ukraine, the Kuala Lumpur Stock Exchange, the Taiwan Stock Exchange, the National Stock Exchange of India, the Bombay Stock Exchange of India, the Canadian Venture Exchange, the Toronto Stock Exchange, and the Paris Bourse. The U.S. equity markets utilise both methods, although order flow is increasingly transmitted via proprietary terminals. However, a trader at a Wall Street firm could conceivably receive an order by telephone while at the office, walk to the NYSE, and verbally transmit the order to a specialist on the floor of the NYSE. This analysis suggests that from a global perspective, a number of channels in the first or second linkage are "open" systems; that is, investors theoretically can access the systems. Telephone, facsimile, and Internet transmissions share this characteristic of "openness."

¹⁶⁹ See Tamar Frankel, The Internet, Securities Regulation, and the Theory of Law, 73 CHI.-KENT L. REV. 1319, 1335 (1998).

¹⁷⁰ See Regulation of Exchanges Release, supra note 8, at 168 ("This [trading] may be accomplished in a variety of ways, including through the use of proprietary software, leased lines or a public network such as the Internet."); see also MARKET 2000 REPORT, supra note 42, at VII-1.

¹⁷¹ See e-mail from John Ruckrich, Principal Consultant, Pricewaterhouse Coopers, to author (Mar. 23, 2000) (on file with author).

¹⁷² See id. The Canadian Venture Exchange was created by the merger of the Vancouver and Alberta stock exchanges on November 29, 1999. See About the Canadian Venture Exchange, at http://www.cdnx.ca/About/CDNX/ (last visited Apr. 20, 2000).



4. Multiple Forms of Cross-Border Order Flow

A domestic investor purchasing domestic securities on a foreign exchange may use a variety of channels. As explained below, the method a domestic investor uses to transmit the order determines whether the bid or transaction is reported on the NMS. The possible channels of order flow are: (a) from a domestic investor to a foreign market without domestic intermediation; (b) from a domestic investor to a foreign market through a foreign intermediary; (c) from a domestic investor through a domestic broker-dealer and an affiliated or unaffiliated foreign broker-dealer to a foreign market; and (d) from a foreign investor directly or through a foreign intermediary to a foreign market.

(a) Order Flow to a Foreign Market Without Domestic Intermediation

The simplest form of order flow travels from a domestic investor to a foreign market without intermediation. For the last several years, "technology and the emergence of screen-based trading has made it possible for exchanges to establish terminals outside their home country to facilitate foreign-investor access to their markets." Remote and unintermediated cross-border trading takes place by using such technology in conjunction with a trading floor:

For example, in September 1994, the Amsterdam Stock Exchange introduced new electronic trading facilities. This enhanced technology enables members of the system that permits banks and broker-dealers to effect wholesale trades on-screen using the Automatic Interprofessional Dealing System Amsterdam ("AIDA"). This system permits exchange participants to enter bids and offers and to execute trades via a remote computer located in their of-

¹⁷³ MARKET 2000 REPORT, supra note 42, at VII-A.

fices. Similarly, Frankfurt's Deutsche Börse provides remote access in London, Amsterdam, Paris, and Zurich, and has attracted 44 remote members. The number of remote members of the Deutsche Börse is predicted to swell to at least 100 within three to five years. In addition, the Athens Stock Exchange has installed an electronic trading system that allows members to execute orders via exchange-owned terminals. ¹⁷⁴

or by means of a completely automated trading system:

[S]ince 1989, OM Stockholm (formerly the Stockholm Stock Exchange) has been completely electronic, and has remote members in London, Denmark, Norway, Finland, and Switzerland. OMLX, the London Securities & Derivatives Exchange, which is owned by the same company as OM Stockholm, is also a completely electronic trading system. Tradepoint, a London-based electronic stock exchange, started trading in September 1995. The Paris Bourse is now an entirely computerized stock market. Supercac, a system linked to member firms and other intermediaries collecting client orders, went on line in April 1995 and allows for continuous, automated trade execution to take place on the Paris Bourse. The purchase by the Toronto Stock Exchange ("TSE") of the Paris Bourse's Supercac software enabled the TSE to close its floor on April 24, 1997. Other examples of completely automated exchanges include the MEFF Renta Fija and MEFF Renta Variable in Spain, the New Zealand Stock Exchange, the Korean Stock Exchange, the Philippine Stock Exchange, the Singapore Stock Exchange, and the Thailand Stock Exchange.

Foreign exchanges that offer remote access to members located in non-U.S. jurisdictions generally install proprietary market terminals in the members' offices by providing data feeds or codes for use with software operated through the members' computers, or by allowing members to access a market's trading facilities through third-party services or public networks, such as the Internet. Several foreign markets have sought, but not received, comfort from the Commission to allow them to offer direct trading services to U.S. persons without violating the registration requirements for broker-dealers and exchanges. 177

¹⁷⁴ Regulation of Exchanges Release, *supra* note 8, at 168, 169-71 n.216 (citations omitted); *see also* MARKET 2000 REPORT, *supra* note 42, at VII-C. Such technology is called an "automatic order match system with remote access." The first such system was launched by the Cincinnati Stock Exchange in 1976. *See History, Cincinnati Stock Exchange, at* http://www.cincinnatistock.com/history.html (last visited Oct. 28, 2000).

 ¹⁷⁵ Regulation of Exchanges Release, supra note 8, at 169-71 n.216 (citations omitted).
 176 See id. at 171.

¹⁷⁷ See id. at n.219. The Commodities Futures and Options Trading Commission began to take a different approach to the registration of foreign exchanges, which permitted foreign exchanges operating primarily outside the United States an electronic linkage to a U.S. exchange without registration. See CFTC, Proposed Rules Concerning Order Routing and Electronic Access to Futures Exchanges Operating Primarily Outside the United States, Release No. 4243-99 (Mar. 16, 1999), 64 Fed. Reg. 14159 (Mar. 24, 1999). However, the proposed rule was withdrawn. See 64 Fed. Reg. 32829 (Jun. 18, 1999) (noting that fundamental issues concerning cross-border transactions first must be resolved).

A domestic investor directly trading shares of the NASDAQ Ten on the EASDAQ would not result in NMS transaction reporting because the EASDAQ is not a market center of the NMS. The NMS reporting requirements derive from the duty of an exchange to file a transaction reporting plan for all transactions in exchange-listed and NASDAQ securities, ¹⁷⁸ and the EASDAQ does not file a reporting plan with the Commission. However, the Internet Release places in doubt the regulatory status of a foreign exchange that accepts orders through a Web site. The Internet Release creates the anomalous situation in which a domestic investor could use a proprietary terminal, telephone or facsimile apparatus to transmit an order to a foreign exchange without the foreign exchange being registered. However, if the exchange had a Web site on a server in its home jurisdiction, it could not accept an order over the Internet without incurring greater risk of being subject to SEC registration.

(b) Order Flow Through a Foreign Intermediary to a Foreign Market

A foreign broker-dealer need not register with the Commission, if it does not solicit transactions in securities for U.S. persons or if it solicits U.S. institutional investors or major U.S. institutional investors under circumstances specified in Exchange Act Rule 15a-6.¹⁷⁹ Because such foreign broker-dealers are not registered, they are not members of an exchange or a national association; therefore, they are not required to disseminate trading data on the NMS pursuant to a transaction reporting plan. Consequently, a U.S. person simply could telephone or fax a foreign broker-dealer to place an unsolicited order. The Internet Release places in doubt whether the bro-

¹⁷⁸ Exchange Act Rule 11Aa3-1(b)(1) provides that "[e]very exchange shall file a transaction reporting plan regarding transactions in listed equity and NASDAQ securities executed through its facilities, and every association shall file a transaction reporting plan regarding transactions in listed equity and NASDAQ securities executed by its members otherwise than on an exchange." Dissemination of Transaction Reports and Last Sale Data With Respect to Transactions in Reported Securities, 17 C.F.R. § 240.11Aa3-1(b)(1) (2000).

¹⁷⁹ Exchange Act, 17 C.F.R. § 240.15a-6 (2000). Rule 15a-6 provides, in part, that a "foreign broker or dealer shall be exempt from the registration requirements of Sections 15(a)(1) or 15B(a)(1) of the Act to the extent that the foreign broker or dealer: (1) effects transactions in securities with or for persons that have not been solicited by the foreign broker or dealer; or...(3) induces or attempts to induce the purchase or sale of any security by a U.S. institutional investor or a major U.S. institutional investor, provided that...." the foreign broker or dealer abides by the detailed reporting, transactional, record keeping, custodial, and organizational requirements as specified by Rule15a-6. See Exemption of Certain Foreign Brokers or Dealers, 17 C.F.R. § 240.15a-6 (2000).

¹⁸⁰ See Exchange Act Rule 11Aa3-1(b)(4), which provides that "[e]very broker or dealer who is a member of an exchange or association shall promptly transmit to the exchange or association of which it is a member all information required by any effective transaction reporting plan filed by such exchange or association (either individually or jointly with other exchanges and/or associations)." Dissemination of Transaction Reports and Last Sale Data With Respect to Transaction in Reported Securities, 17 C.F.R. § 240.11Aa3-1(b)(4) (2000).

ker-dealer with a Web site could receive an unsolicited order over the Internet without the risk of triggering the registration requirements of the federal securities laws.

(c) Order Flow Through a Domestic Broker-Dealer to Foreign Affiliated or Unaffiliated Foreign Broker-Dealer

Order flow through a domestic broker-dealer to a foreign broker-dealer presents significant challenges to the SEC in the realm of market transparency. The Market 2000 Report found that domestic broker-dealers frequently sent trades by facsimile through a foreign brokerage desk or foreign affiliate to avoid NMS transparency standards, off-board trading restrictions, transaction fees, or limits on short sales. In the so-called "fax market," trades were "booked" on the foreign desk, and no NMS reporting occurred. Transparency standards in foreign markets are less stringent than within the NMS; consequently, foreign trades generally are not reported publicly in the United States. Rather than the requirement that trades be reported through ACT within 90 seconds of execution, foreign transactions in domestic issues may not be reported until the market close of the next day to the NYSE¹⁸³ and the NASD¹⁸⁴ due to the fact that such transactions may be executed outside of normal trading hours. The present exchange rules require the transaction to be reported if it is for the account of a NYSE or NASDAQ member or a customer of a member. 185 Significantly, an investor generally can end-run the transaction reporting rules by making an unsolicited trade through a foreign broker-dealer that is exempt from registration pursuant to Exchange Act Rule 15a-6 by phone or fax.

(d) Direct or Intermediated Order Flow From a Foreign Investor to a Foreign Market

Finally, as the case with trading shares of the NASDAQ Ten on the EASDAQ, there is a strong likelihood that most of the trading will be attributed to foreign investors through foreign broker-dealers. As neither the

¹⁸¹ See MARKET 2000 REPORT, supra note 42, at VII-2.

¹⁸² See id.

¹⁸³ See N.Y.S.E. Rule 410B(b), 2 N.Y.S.E Guide (CCH) ¶ 2410B(b), at 3704.

¹⁸⁴ See NASD Rule 4632(a)(4)(B)(ii), [2000] NASD Manual – The NASD Stock Market (CCH) ¶ 4632(a)(4)(B)(ii), at 5872 (requiring trades executed between 6:30 p.m. and midnight Eastern Time in the United States be reported through ACT on the next business day (T+1)). Between 8:00 a.m. and 6:30 p.m., the NASD operates the ACT automated trade reporting system to facilitate trade reporting. See id. at ¶ 4632 (a)(4)(B)(i). An NASD member that is not a market maker may make last sales reports of transactions in designated securities on a weekly basis. See id. at ¶ 4632(a)(3).

¹⁸⁵ See N.Y.S.E. Rule 410B(a), 2 N.Y.S.E. Guide (CCH) ¶ 2410B(a), at 3704; NASD Rule 632(a), [2000] NASD Manual—The NASDAQ Stock Market (CCH) ¶ 4632(a), at 5871.

foreign broker-dealer nor the foreign exchange utilizes a "means or instrumentality of interstate commerce," the participants and the transaction generally are outside SEC jurisdiction. Consequently, this trading data will not be disseminated on the NMS.

(e) Conclusion

Several channels for order flow in domestic securities on foreign exchanges do not result in trade reporting on the NMS. Significantly, shares of issuers that comprise a substantial portion of NMS capitalization will be traded without the benefit of an environment in which all markets compete, as the EASDAQ is not an NMS market center. Rather, NMS transaction reporting is delayed, or is left to *arbitrageurs* that domestically trade shares of the EASDAQ Ten. Moreover, the Commission needs to ensure that these avenues of cross-border order flow do not provide domestic investors with a way to avoid domestic regulatory requirements or for fraudulent or manipulative purposes.¹⁸⁷

In the Market 2000 Report, the Staff noted the ease and regularity with which U.S. securities could be traded in foreign markets or on the trading desks of foreign broker-dealers in the "fax market." This trading occurred in hundreds of issues and constituted approximately 7 million shares per day of NYSE volume. Most of this trading took place on the London Stock Exchange shortly before the opening of the NYSE, and involved a large block or a basket of multiple stocks. Although current figures are not available, the eminent demise of NYSE Rule 390, the popularity of the Internet, the proliferation of ATSs and further globalization of the markets, lead one to expect that such trading has increased dramatically since release of the Market 2000 Report.

The following Table illustrates the possible varieties of transmission of order flow from a domestic investor or participant to a foreign market. Notably, the securities may be issued either by domestic or foreign companies, and the mode of transmission for order flow in the fax market may be telephone, facsimile, Internet, or proprietary means of data transmission.

¹⁸⁶ See Exchange Act, 15 USC §78j, supra note 160. But see infra note 260 (discussing the extraterritorial jurisdiction of the SEC).

¹⁸⁷ See Market 2000 Report, supra note 42, at VII-4.

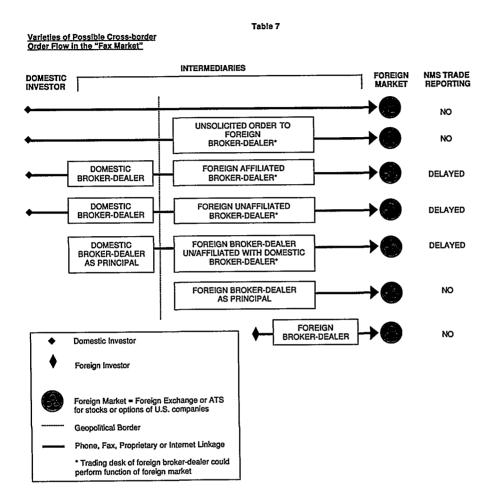
¹⁸⁸ See id. at II-13-14, VII-2.

¹⁸⁹ See id. at II-14.

¹⁹⁰ See id.

¹⁹¹ N.Y.S.E. Rule 390 prohibited a member from trading N.Y.S.E. stocks "off the board." See 2 N.Y.S.E. Guide (CCH) ¶ 2390, at 3651. At the time of the Market 2000 Report, Rule 390 did not apply to transactions in a foreign market outside of trading hours. The N.Y.S.E. has applied to the Commission to approve the repeal of Rule 390. See Fragmentation Release, supra note 134.

Thus, the term "fax market" has become an anachronism in the six years following release of the Market 2000 Report.



III. ANALYSIS OF THE "TARGETING APPROACH"

A. The SEC's Internet Release: The Concept of "Targeting"

The Commission stated explicitly in the Internet Release that, "our investor protection concerns are best addressed through implementation by issuers and financial service providers of precautionary measures that are reasonably designed to ensure that offshore Internet offers are not targeted

to persons in the United States or to U.S. persons."¹⁹² The Internet Release uses the term, "U.S. persons" as it is defined in Exchange Act Rule 902(k) of Regulation S. Pursuant to Rule 902(k), a "U.S. Person" includes: "(i) [a]ny natural person resident in the United States or "(ii) [a]ny partnership or corporation organized or incorporated under the laws of the United States."¹⁹⁴ In the Commission's view, the term "U.S. Person" is predicated on residence in the United States, notwithstanding any temporary presence in a foreign jurisdiction. Therefore, to the problem of securities activity over the Internet—an inherently non-national medium of communication—the Commission has embraced an approach that is closely tied to physical presence in a geographic location. In so doing, the Commission incongruously has superimposed the concept of terra firma over the ethereal medium of Cyberspace.

B. Adoption of the Targeting Approach by IOSCO

Notably, the IOSCO Internet Report adopted the Targeting Approach. In the IOSCO Internet Report, IOSCO set forth the following factors that securities regulators should consider in determining whether to assert regulatory authority over an offer of securities or financial services on the Internet.

Factors that may support the assertion of regulatory authority include:

- It is evident that information is targeted to residents of the regulator's jurisdiction.
- The issuer or financial service provider accepts purchases from or provides services to residents of the regulator's jurisdiction (unless made pursuant to an exemption or under circumstances that may exclude a public offering).

¹⁹² Internet Release, supra note 7, at 8-9 (emphasis added).

¹⁹³ See id., at n.20. Rule 902(k) of Regulation S is found at 17 C.F.R. § 230.902(k).

¹⁹⁴ 17 C.F.R. § 230.902(k) (2000).

¹⁹⁵ See Internet Release, supra note 7, at n.20 (citing Securities Act Release No. 7505 (Feb. 18, 1998)).

¹⁹⁶ See Stephen J. Choi & Andrew T. Guzman, Portable Reciprocity: Rethinking the International Reach of Securities Regulation, 71 S. CAL. L. REV. 903, 910 (1998) (arguing that Regulation S "take[s] a primarily territorial approach to jurisdiction."). The Commission has recently applied the Targeting Approach to cross-border tender offers in the so-called "Rule 801 Proposals." See SEC, Cross-Border Tender and Exchange Offers, Business Combinations and Rights Offerings, Release Nos. 33-7759, 34-42054, IS-1208, 39-2378 (Oct. 26, 1999). The Release applies the Targeting Approach to an offshore bidder that uses a Web site to publicize an offshore tender or exchange offer, rights offering, or business combination. The Release requires the bidder to obtain the mailing address or telephone number of security holders to ensure that posted offering materials are not directly or indirectly accessed by U.S. persons over the Internet. See id.

 The issuer or financial service provider uses e-mail or other media to "push" the information to residents of the regulator's jurisdiction.

Factors that may support a decision not to assert regulatory authority include:

- The issuer or financial service provider clearly states to whom the Internet offer is directed, rather than appearing to extend the offer into any jurisdiction.
- The Web site contains a statement listing those jurisdictions in which the issuer or financial service provider has been (or has not been) authorized to offer or sell its securities or services.
- The issuer or financial service provider takes precautions that are reasonably designed to prevent sales to residents in the regulator's jurisdiction.

These factors make clear that IOSCO has adopted the focus on geopolitical boundaries initiated by the securities regulatory body of the United States.

C. Adoption of the Targeting Approach by Other Securities Regulatory Bodies

In addition to the Internet Release, the Financial Services Authority, the securities regulator of the United Kingdom adopted a "targeting" or "directing" approach to its assertion of jurisdiction over securities activity on the Internet. Like the Internet Release, the Financial Services Authority set forth a similar Targeting Approach to consider, in the totality of the circumstances, whether an offer on the Internet fell under regulation in the United Kingdom. 199

Commentators have noted correctly that the IOSCO Internet Report "stands to significantly influence regulations and policies regarding internet securities activity." The Annex to the IOSCO Internet Report, which summarized the initiatives of other securities regulators, supports this proposition.²⁰¹ For example, the Australian Securities and Investment

¹⁹⁷ IOSCO Internet Report, supra note 147, at 6.

¹⁹⁸ See Financial Services Authority, Treatment of Material on Overseas Internet World Wide Web Sites Accessible in the United Kingdom but not Intended for Investors in the U.K. (May 28, 1998). See generally Mann, supra note 70; Michelle C. Wallach & John T. Travis, Financial Services on the Internet and the U.K. Regulatory Regime, in SECURITIES LAW & THE INTERNET, supra note 70, at 441.

¹⁹⁹ See Michael Mann, et al., Summary Implications of the September 1998 Report of the Technical Committee of IOSCO Regarding Securities Activity on the Internet, in Securities Law & the Internet, supra note 70, at 423, 425.

²⁰¹ See IOSCO Internet Report, supra note 147, Annex; see also Mann, supra note 70, at 431-40 (analyzing IOSCO Internet Report).

Commission issued *Policy Statement Number141: Offers of Securities on the Internet.*²⁰² The *Policy Statement* notes that the Australian Commission does not intend to regulate Internet offers that are not targeted at persons in Australia, but that it will consider other factors, such as disclaimers or lack of other misconduct when considering whether an Internet-based offer should be registered.

The Canadian Securities Administrations²⁰³ took a similar approach, stating that a Web posting that offers securities qualifies as trading securities in a Canadian jurisdiction, unless the posting has a prominent disclaimer, and the cyber-offeror takes reasonable precautions to ensure that it is not engaging in a securities transaction with Canadian residents.²⁰⁴

In Germany, the Bundesaufsichtsamt für den Wertpapierhandel (German Federal Supervisory Office for Securities Trading) treats an offer over the Internet as a public offer in Germany, if either German investors expressly are targeted by the offer or if German investors are not excluded expressly from the offer. In either event, the offeror must file a prospectus with the Supervisory Office. The Supervisory Office stated that it was concerned that investors without access to the Internet also should have access to e-offers. The Supervisory Office further stated that an Internet-based offering must contain disclaimers in the German language and must ensure that no German residents respond to the offer to remain exempt from the registration requirements. Finally, the Supervisory Office stated that it is increasing its enforcement activities against those who do not comply with its Internet policy.

In contrast to these regulatory bodies, the Corporate Finance Committee of Singapore has focused not on the Targeting Approach, but on making Singapore an international financial center. On October 28, 1998, it issued *The Securities Markets Final Recommendations*, which emphasized ex-

²⁰² See Australian Securities and Investment Commission, *Policy Statement Number 141: Offers of Securities on the Internet* (Feb. 3, 2000), *at* http://www.cpd.com/au/asic/ps/asicps.htm (last visited Apr. 4, 2000).

²⁰³ The Canadian Securities Administrations includes: the Alberta Securities Commission; British Columbia Securities Commission; Manitoba Securities Commission; Office of the Administrator, New Brunswick; Securities Commission of Newfoundland; Registrar of Securities, Northwest Territories; Nova Scotia Securities Commission; Ontario Securities Commission, Registrar of Securities, Prince Edward Island; Commission des valeurs mobilières du Québec; Saskatchewan Securities Commission, and the Registrar of Securities, Government of the Yukon. See Canadian Securities Authorities, National & Multilateral Policies: National Instrument 14-101, at http://albertasecurities.com/policies/nat_multi_pol.htm (last visited Apr. 4, 2000).

²⁰⁴ See Canadian Securities Authorities, National & Multilateral Policies: Trading Securities Using The Internet And Other Electronic Means, No. 47-201, at http://albertasecurities.com/policies/nat_multi_pol.htm (last visited Apr. 4, 2000).

²⁰⁵ See Jahresbericht 1998 (Annual Report 1998), at http://www.bawer.de/jahresbe.htm (last visited Apr. 5, 2000). This document can be downloaded in German. See id. (Öffentliche Angebote über das Internet" (Offerings over the Internet)).

panding use of the Internet to distribute information such as prospectuses, annual reports, and corporate announcements. The Final Recommendations emphasized that the current law should be modified to authorize the Internet as a sufficient method of distribution for these documents. Moreover, it recommended that issuers establish Web sites to make available such information to investors, and that shareholders have permission to attend shareholder meetings and vote via the Internet. The Corporate Finance Committee noted the substantial cost reductions in conducting such activities over the Internet.

D. Implications for a Global Securities Market of the Targeting Approach

The Targeting Approach presents problems when viewed from a global perspective. This perspective recognizes that advances in technology already have created a global market in securities and related services that transcends geopolitical borders, and that issuers have not exercised fully their discretion to determine the market or country in which their shares are traded. This perspective further recognizes the objectives of investor protection, market transparency and competition, and efficiency (admittedly, frequently conflicting goals), while considering vast global asymmetries regarding distribution of market capitalization and relative stringency of disclosure and regulatory regimes.

1. Dangerous Territoriality: Regulation S and the Restriction to "U.S. Persons"

The primary difficulty with the Targeting Approach is that it runs counter to incentivizing efficient, low-cost markets. One would expect investors to utilize the most efficient securities markets due to the low communications costs of the Internet. The Targeting Approach, however, restricts low-cost/high-efficiency markets from accepting orders over the Internet from foreign jurisdictions in which they are not registered. Notably absent from the IOSCO Internet Report is the adoption of the Targeting Approach by securities regulators from developing markets, the countries that comprise the majority of global population, 207 and whose populations could benefit from the accessibility and low cost of the Internet. If all countries adopted the Targeting Approach (and they seem to be following this trend), U.S.-based exchanges would be forced to register with regulatory bodies from Armenia to Zaire if they did not make adequate efforts to

²⁰⁶ See Mann, supra note 70, at 439.

²⁰⁷ In 1997, low and middle-income countries had an average GNP per capita of US\$1,250 versus high-income countries of US\$25,890. Low and middle-income countries comprise 84.1% of global population. *See* THE WORLD BANK, *1999 Economic Indicators*, *at* http://www.worldbank.org/wdr/2000/fullreport.htm (last visited Apr. 20, 2000).

prevent foreign residents from utilizing the Internet for transmission of order flow. 208

This concern is significant in light of the findings in Section II(B)(1) supra of the dominant position of U.S. exchanges in global equity market capitalization and of a global trading environment marked by increasing cross-border transactions. Certainly, if the Internet creates a global menu of securities markets, it may well be that investors should be permitted broad access to the most efficient markets. However, the Targeting Approach places a distorted registration onus on U.S.-based exchanges because those markets have the largest relative capitalization and greater relative transparency, efficiency, and disclosure. These are the very markets that investors would be expected to access via the Internet due to its low communications costs.

2. Regulatory Uncertainty and Free-riding the Strict U.S. Disclosure Regime

Because the Targeting Approach creates a very narrow safe harbor, foreign exchanges that conduct limited Internet transactions with U.S persons risk subjecting themselves to the registration requirements of the Exchange Act. The Regulation of Exchanges Release, moreover, raises more questions than it provides regulatory guidance to foreign exchanges that give direct trading access to U.S. persons. The Commission's lack of regulatory guidance on this matter has discouraged the offer of foreign market access to U.S. persons; furthermore, foreign markets have been reluctant to permit U.S. persons to become members of their markets without assurances from the Commission that they would not be required to register as an exchange. As a consequence, U.S. persons may be deprived of the opportunities to access these foreign markets, which provide beneficial diversification effects.

²⁰⁸ The title of this essay derives from the territorial focus of the Targeting Approach, although the implications of the Targeting Approach have international consequences as do other aspects of domestic securities law. See Stephen J. Choi & Andrew T. Guzman, The Dangerous Extraterritoriality of American Securities Law, 17 Nw. J. Int'l L. & Bus. 207 (1996). But see Bevis Longstreth, A Look at the SEC's Adaptation to Global Market Pressure, 33 COLUM. J. Transnat'l L. 319 (1995) (arguing the SEC's regulatory approach has sought to limit the extraterritorial effects of domestic regulation).

²⁰⁹ See Regulation of Exchanges Release, supra note 8, at 173; see also SEC, Response Letter from Deutsche Börse to Commission on Regulation of Exchanges Release 26 (Oct. 3, 1997) ("The past unwillingness of foreign exchanges and other markets to apply for limited volume exemptions under Section 5 of the Exchange Act further indicates that such procedural limitations, even with the Commission's broader exemptive power with respect to the substantive application of the provisions of the Exchange Act, would likely impose prohibitive costs and excessive delays in providing U.S. investors with access to trading on their facilities.").

²¹⁰ See Edwin J. Elton & Martin J. Gruber, Modern Portfolio Theory and Investment Analysis 274 (5th ed. 1995) (concluding that the correlation between indices of

The Targeting Approach produces a related externality: regulatory free-riding. Under the current system, exchanges of countries with lax regulatory regimes can free-ride off the strict SEC-mandated disclosure and the price discovery generated by the primary markets in the NMS. The market centers of the NMS create value through their rules, operations, and surveillance which, in turn, create large and liquid markets.²¹¹ Consequently, the market centers of the NMS produce efficient price discovery in the NASDAQ Ten, which the EASDAQ traders then use at no cost.

Regulatory free-riding produces an externality for issuers that choose to list on an NMS market center, rather than a foreign market that operates under a less strict regulatory regime. In return for access to the large U.S. capital markets for funding, these issuers have undergone the expense of a strict disclosure regime, accounting pursuant to Generally Accepted Accounting Principles (rather than International Accounting Standards), and quarterly (rather than semi-annual) reporting. Nevertheless, unsolicited listing on foreign markets fragments order flow for their shares. This fragmentation prevents competing orders from interacting with each other, thereby lowering the liquidity of the issue. As a result, price discovery of the issuers' shares loses efficiency. Therefore, one would expect fragmentation to increase the cost of capital for the issuer because pricing inefficiency constitutes a risk factor that impacts the expected future value of the issue.

different countries is lower than the average correlation coefficient between two U.S. equities.); Bruno H. Solnik, Why Not Diversify Internationally Rather Than Domestically?, Fin. Analysts J., Jul.-Aug. 1974, at 48 (showing average variability of an internationally diversified portfolio to be less than half the variability of a domestically diversified portfolio); Kenneth R. French & James M. Porterba, Investor Diversification and International Equity Markets, 81 Am. Econ. Rev. 223 (May 1991) (arguing that "home country" bias in portfolio diversification reduces investment returns). See generally William F. Sharpe, A Simplified Model of Portfolio Analysis, 9 MGMT. Sci. 227 (1963) (explanation of risk reduction through diversification)

²¹¹ Price discovery has measurable value, as supported by the revenues that major market centers obtain from vending price information. In 1998, N.Y.S.E.'s share of CTA revenue was \$111.5 million (15.3 percent of total revenues). See Keeping Apace of Cyberspace, supra note 146, at 54. The NASD's market data revenues from Nasdaq were \$128.5 million (17.4 percent of total revenues). See id.; see also Mahoney, supra note 12, at 1480 ("The physical facility, moreover, may not be the most important asset comprising the market. Markets generate valuable information in the form of prices and unless it is possible for the members to limit access to price information, non-members may free-ride on the prices reducing their own search costs."); J. Harold Mullherin et al., Prices Are Property: The Organization of Financial Exchanges From a Transaction Cost Perspective, 34 J.L. & Econ. 591, 630-34 (1991).

²¹² See Yakov Amihud & Haim Mendelson, Asset Pricing and the Bid-Ask Spread, 17 J. Fin. 223, 223-49 (1986).

3. Global Market Fragmentation and Transparency

Judge Easterbrook and Professor Fischel succinctly stated the truism that the whole concept underlying an efficient market rests the concentration of order flow:

Organized exchanges reduce the costs of transacting. By making it easier for parties with different beliefs about the future to transact, organized exchanges increase liquidity and reduce the unnecessary risk of investing. The greater liquidity of the secondary market, the more successful the exchange.²¹³

As discussed in Section II(A) supra, the dual objectives of consolidation of order flow and competition among multiple markets inherently are contradictory. The problem with the Targeting Approach from a global perspective is that it creates separate markets based on geopolitical boundaries, but it cannot follow through with quotation or transaction reporting requirements similar to the NMS. In other words, the Targeting Approach does not promote competition among orders on a global level despite the globalization of markets.

Moreover, the issues of order fragmentation, POF and transparency set forth in the Survey of ongoing issues connected with the NMS, 214 become exacerbated when viewed from the global perspective. Consider again, the trading of shares in a NASDAQ Ten issuer on the EASDAQ. Trades that U.S. broker-dealers do not intermediate are not reported at all to the NMS. The foreign broker may internalize an order for shares of a NASDAQ Ten issuer, route the order to the EASDAQ, or perhaps to another foreign exchange or foreign ATS that provides POF to the broker. Moreover, the existence of the POF may never be disclosed to the investor. Finally. reporting of the trade will not take place in accordance with the standards of the NMS, but by the less transparent standards of the European Union.²¹⁵ If no NMS transaction report is made, transparency will take place only to the degree that domestic trading by arbitrageurs indicate that the trade was "out of the market." Although there exists debate and inconclusive data about fragmentation, POF, and transparency within the NMS, this example establishes clearly the troublesome nature of the current global trading environment.

²¹³ See Frank H. Easterbrook & David R. Fischel, Mandatory Disclosure and the Protection of Investors, 70 VA. L. REV. 669, 689 (1984) (citing Tesler, Why There Are Organized Futures Markets, 24 J.L. ECON. 1 (1981)).

²¹⁴ See supra Section II A 6.

²¹⁵ See Market 2000 Report, supra note 42, at VII-2.

IV. SUPPLEMENTAL APPROACH: UTILIZATION OF CODE-BASED REGULATION AND THE INTEGRATED GLOBAL MARKET SYSTEM

A. History of a Unified Market Approach

Shortly after passage of the 1975 Amendments, Professors Mendelson and Peake and R.T Williams proposed the PMW System to the National Market Advisory Board, the body Congress charged to design the NMS.²¹⁶ The proposed PMW System would operate on the trading platform of a single auction market per issue, an approach that would have encouraged competitive market-making and execution of matching customer orders without the necessity of dealer intervention.²¹⁷ In the PMW System, all order flow would be centralized and trade reporting would simply exist as a by-product of the trading system. Therefore, the PMW System would consolidate all the existing systems of quotation dissemination, execution information, and trade reporting into a single system. Other attributes of the proposed PMW System were that it would have cost relatively little to build, it would have provided a comprehensive audit trail of trading information for regulatory purposes, and would have provided investors with the greatest supply and demand information at all times. Finally, because price parameters automatically triggered an execution, the trading system captured all required trading information. The system then could relay the information back to an investor's brokerage house for clearing and settlement. Because such a system did not rely upon manual transcription, there was practically no possibility of transcription errors. At the time of the proposed PMW System. Toronto's Computer Automated Trading System and the Cincinnati Stock Exchange operated similar trading systems. History tells us that the PMW System was not adopted.

At the time of the Market 2000 Report, a group of commentators recommended again that the Commission adopt the "single market approach." Pursuant to the single market approach, the Commission would create a single market with identical rules applicable to all participants, investors, and orders. An order would interact in a single automated ordermatch system." The Staff rejected this proposal, preferring "discrete, incremental market improvements, facilitating fair market competition, and promoting full disclosure." In assessing the Market 2000 Report, Professors Mendelson and Peake revisited the PMW System and noted the Staff's rejection of the single market approach, stating that U.S. equity markets

²¹⁶ See Mendelson & Peake, supra note 27, at 464-65.

²¹⁷ See id. at 465.

²¹⁸ See Market 2000 Report, supra note 42, at VII-B.

²¹⁹ See Mendelson & Peake, supra note 27, at 465.

²²⁰ MARKET 2000 REPORT, supra note 42, at III-D.

must remain readily available to foreign investors at low cost.²²¹ Invoking national interests, they recommended that the "solution to the flight of stock trading from our shores is for the Commission to enact rules which encourage the development of electronic markets. This would enhance U.S. competitiveness greatly and encourage foreign investors to use American market centers."

Over the years, other commentators have called for unification of various regulatory aspects of the NMS and also of global securities markets. One commentator has recommended that "market centers could create trading mechanisms but leave surveillance and discipline of their members or users to a single overarching national body, either the SEC or an SECmonitored professional association of broker/dealers (NASD perhaps)."223 In 1991, another proposal for the single regulatory approach stated that "[a] single regulatory organization is needed to oversee the trading of securities on the international market. This body would work to harmonize existing rules and mandate new regulations to better protect investors all over the world."224 In 1998, a similar approach to the problem of globalized securities markets, the "Global Coordinator," was proposed. 225 The Global Coordinator was described as an international regulatory body that would harmonize disclosure rules through the cooperation of domestic securities regulators, and would monitor domestic securities regulators' implementation, interpretation, and enforcement of the unified standards, which would bind member countries.²²⁶ The "leading candidate" to serve as Global Coordinator, according to the Commentator, was IOSCO. 227

Most recently, the Commission's Fragmentation Release gave the public the opportunity to comment on issues related to market fragmentation.²²⁸ The Commission sought comment on six proposed approaches. The last proposed approach was the "most controversial," but most relevant to this

²²¹ See Mendelson & Peake, supra note 27, at 470.

²²² Id.

²²³ Oesterle, supra note 13, at 507.

²²⁴ Solomon & Corso, supra note 11, at 338.

²²⁵ See Uri Geiger, Harmonization of Securities Disclosure Rules in the Global Market - A Proposal, 66 FORDHAM L. REV. 1785, 1800-1805 (1998).

²²⁶ See id.

²²⁷ See id. at 1800 n.83.

²²⁸ See generally Fragmentation Release, supra note 134.

²²⁹ See Michael Schroeder, SEC to Study Plan to Link Exchanges for Better Trades, WALL St. J., Feb. 24, 2000, at C19. The other five possible options for addressing market fragmentation are: (a) requiring greater disclosure by market centers and brokers concerning trade executions and order routing; (b) restricting order internalization and POF; (c) requiring that market orders be exposed to price competition; (d) prohibiting market makers from "trading ahead" of previously displayed and accessible limit orders; and (e) providing intermarket time priority for limit orders or quotations that improve the NBBO. See Fragmentation Release, supra note 134, at § IV.C.2.

essay. The proposal called for the establishment of a national market linkage system ("NLS") as one alternative approach that would provide price/time priority for all displayed trading interest. The NLS would display all orders and quotations to all market participants and the public in a fully transparent fashion. Under the NLS proposal, market makers could execute a transaction as principal only in the event that the execution resulted in price improvement. Although the NLS would automatically expose trading interest, the NLS would not serve as a market center; rather, execution would occur at a market center. The NLS proposal, however, does not even attempt to remedy the market fragmentation that exists on a global basis.

B. Description of the Integrated Global Market System

This essay proposes a solution to the problem of globalized securities markets in cyberspace that is more modest than creation of a Global Coordinator, but more expansive in scope than the NLS. Simply, this essay takes the position that the SEC should consider a "code-based approach" to the issue of global market fragmentation. Certainly, the Commission cannot dictate the architecture of an Internet-based global securities market. However, the Commission can consider proposals from a consortium of global market participants for the creation of such a market, and it can determine whether the architecture of the proposed exchange meets the standards of the federal securities laws. The SEC should use a code-oriented approach to regulation of market structure, an approach that promotes the primary policy objectives of the federal securities laws: investor protection and the facilitation of capital formation.²³⁰

One way to implement a code-based approach would be for the SEC to consider applications for the registration of an "integrated global securities market" ("IGSM"). An IGSM would serve as an exchange, with characteristics including integrated systems of disclosure, self-regulation, dispute resolution, and clearing and settlement, that would operate on a global basis. The trading system should operate on the platform of an automated order-match system with remote access for intermediaries and investors. ²³¹

²³⁰ See Frankel, supra note 169, at 1324 n.16; see also H.R. Conf. Rep. No. 104-369, at 31 (1995), reprinted in Act of Nov. 28, 1995, Pub. L. No. 104-67, 1995 U.S.C.C.A.N. 730, 730 (stating that the objectives of the federal securities laws are "to protect investors and to maintain confidence in the securities markets" to "benefit national savings, capital formation and investment"). Contra Merrit B. Fox, Securities Disclosure in a Globalizing Market: Who Should Regulate Whom, 95 MICH. L. Rev. 2498, 2609 (1997) ("The traditional SEC goal of investor protection and its more recently articulated goal of market protection are both misguided.").

²³¹ Without entering the debate over the order-driven versus dealer-driven markets (see generally Pagano & Roell, supra note 122; Madhavan, supra note 122), it initially appears that an order-driven market may provide a better platform for an IGSM because it provides

Under this proposal, an IGSM would apply to the SEC for registration. Before granting a registration, the SEC would consider the same host of issues as it does when any applicant seeks registration as an exchange.²³² but would also consider systems architecture that would enable the exchange to operate transnationally using a communications medium such as, but not necessarily limited to, the Internet. In adopting this approach, the Commission should not follow the Targeting Approach or focus on the geographic location of the issuers, participants, and investors. Rather, the Commission should consider whether the IGSM meets the functional requirements of the federal securities laws. As such, the issuers, participants, and investors connected with the IGSM could be from any country. Moreover, the floorless trading system theoretically could exist in any country, although it could be expected that an IGSM would have one less hurdle toward registration if the trading system was physically located in the United States, rather than in a country that grants access to the Commission as if the trading system were located in the United States.

With respect to disclosure of listed issues, an IGSM should seek approval from the SEC for home country levels of disclosure. This concept is not novel. The SEC has permitted home country disclosure for issuers listed on the Pink Sheets since 1983.²³³ Section 12(g)(1)(B) of the Exchange Act requires quarterly reporting by issuers whose shares are traded in the United States that have total assets of \$1 million and a class of equity securities held of record by 500 or more persons.²³⁴ Section 12g3-2(b)(1) provides that securities of a foreign private issuer are exempt from the requirements of 12(g) if the class has fewer than 300 holders resident in the United States or the issuer has filed with the Commission the information that it is required to make public pursuant to the law of the country of domicile or the country in which it is incorporated or organized ("home country disclosure").²³⁵ However, the exemption is not available for secu-

for remote access by global investors without the need to regulate the operation of market makers which may be located in different countries. In any event,

[t]here is little technological justification for retaining the current exchange method of matching buyers and sellers—a method based on the interaction of individuals in an auction market on an exchange floor. Despite some practical problems of implementation, the matching function is well suited to computerization, and it is likely that automation would in the long run reduce transaction

Langevoort, supra note 11, at 755.

232 See Exchange Act, 15 U.S.C. § 78f(b) (2000) (setting forth standards for granting

registration to an exchange).

²³³ The "Pink Sheets," published twice daily by the National Quotation Bureau and Over the Counter Bulletin Board Service, provide the bid/ask information of OTC stocks not traded on the NASDAQ. The Pink Sheets provide the names and telephone numbers of the market makers of quoted securities.

²³⁴ See 15 U.S.C. § 78l(g)(1)(B).

²³⁵ See General Rules & Regulations, Securities Exchange Act of 1934, 17 C.F.R. § 240.12g3-2(b)(1) (2000).

rities "quoted in an automated inter-dealer quotation system" or securities represented by American Depository Receipt after October 5, 1983. 236

Home country disclosure comports with the idea of a transnational stock exchange. In fact, an IGSM would be a good replacement for the Pink Sheets. Transparency and liquidity on the Pink Sheets are very poor, and bid/ask spreads are eight to ten times larger than those on market centers. An IGSM should be granted an exemption from the requirement of Section 12g3-2 of the Exchange Act that securities using home country disclosure not be quoted on an "automated inter-dealer quotation system." As a result, investors would receive protections, such as better execution and surveillance afforded by an automated system superior to the Pink Sheets.

The disclosure system on the IGSM would provide more investor protection than the existing global market system provides. Unlike unsolicited orders to a foreign broker-dealer, which is exempt from registration with the Commission pursuant to Section 15a-6, a retail investor could access information about the risks attendant to trading on the IGSM before placing an order by clicking on a hyperlink. A central database, accessible over the Internet and monitored for fraudulent statements and omissions, could maintain disclosure concerning all issuers listed on the IGSM. Further, the IGSM could sponsor officially-sanctioned "chat rooms" monitored for fraudulent statements and stock hyping. Once described this way, the IGSM emerges as a safe alternative to the Pink Sheets and the present open Internet environment in which information and "chat" about issues does not exist on a centralized system subject to market surveillance.

With regard to security, the design of Internet architecture for participants and investors would have to satisfy the SEC for soundness. Section II(C) supra established that order flow was transmitted from investors to NMS intermediaries over the Internet at a rate of one-half million trades daily, and comprised approximately 16% of all equity trades during the first quarter of 1999. Certainly, these findings substantiate the proposition that sufficient encryption technology exists to support an IGSM.²³⁸ The chal-

²³⁶ See 17 C.F.R. § 240.12g3-2(d)(3)(i).

²³⁷ The Pink Sheets suffer from a severe lack of transparency, as they do not provide realtime quotes, volume reporting, or last-sale reporting. *See* Franklin R. Edwards, *Listing of Foreign Securities on U.S. Exchanges, in* Modernizing U.S. Securities Regulation: Economic Structure and Legal Perspectives 53, 62 (Kenneth Lehn & Robert W. Ramphuis eds., 1992). For a description of large bid/ask spreads on the Pink Sheets, see William H. Donaldson, *Contemporary Equity Markets, in* Global Equity Markets: Technology, Competition and Regualtory Changes (Robert A. Schwartz ed., 1995).

²³⁸ Encryption is "an enabling technology that provides companies, their business partners, customers and end users with the ability to get information and service they need much faster and securely." Laura Didio, *Internet Boosts Cryptography*, COMPUTERWORLD, Mar. 16 1998, at 32 (quoting Michael Baum, chairperson of the Information and Security Committee of the American Bar Association). See generally F. Lynn McNulty, Encryption's Importance to Economic And Infrastructure Security, 9 DUKE J. COMP. & INT'L L. 427 (1999).

lenge facing an IGSM is to extend the same level of security that exists for the transmission of orders from the investor to the broker-dealer to the transmission of orders from an investor or broker-dealer to the trading sys-

On the matter of dispute resolution, the IGSM issuers, investors, and participants would have to execute international arbitration agreements. Arbitrating disputes concerning securities transactions has remained a longstanding practice in the United States.²³⁹ It also has been the practice in international transactions to name a neutral arbitrator for the resolution of commercial disputes.²⁴⁰ International arbitration agreements would serve to ameliorate the Commission's concerns over difficulties with foreign court systems not providing effective investor protection.²⁴¹

The IGSM would have to show that it could function as though all members, issuers, and investors could be regulated from the United States. For example, the trading system and trading records of the exchange would either have to be maintained in the United States or be as accessible to the SEC's staff as though they were. In the latter case, the trading system and records would have to be maintained in a country that has an outstanding memorandum of understanding ("MOU") with the SEC that ensured regulatory supervision.²⁴² The same showing would have to be made with respect to the individuals and entities that control and participate in the IGSM.

The existing infrastructure could effectuate clearance and settlement on the IGSM, or down to the level of the beneficial owner by means of a specialized depository. In other words, each investor could have an account in the depository of the IGSM. Securities could not be held in "street

The use of encryption technology is quite widespread. In April 1998, for example, there were over 300 million copies of encryption products in the commercial marketplace made by a leading domestic producer of such products, Rivest-Shamir-Adleman. See id. at 428. Moreover, 29 other countries produce 656 encryption products for sale on the world market that are of similar strength to domestic products. See id.

²³⁹ Arbitration of domestic disputes involving securities transactions has been practiced

since its approval in American Express, Inc. v. McMahon, 482 U.S. 220 (1987).

²⁴⁰ See generally Philippe Fouchard et al., International Commercial Arbitration (Emmanuel Gaillard & John Savage eds., 1999).

²⁴¹ Regulation of Exchanges Release, *supra* note 8, at 174.

²⁴² See generally Michael D. Mann et al., International Agreements and Understandings for the Production of Information and Other Mutual Assistance, 29 INT'L LAW 780 (1995); Caroline A.A. Greene, International Securities Law Enforcement: Recent Advances in Assistance and Cooperation, 27 VAND. J. TRANSNAT'L L. 635 (1994); Michael D. Mann et al., The Establishment of International Mechanisms for Enforcing Provisional Orders and Final Judgements Arising from Securities Law Violations, 55-AUT LAW & CONTEMP. PROBS. 303 (1992); Harvey L. Pitt & Karen L. Shapiro, Securities Regulation by Enforcement: A Look Ahead at the Next Decade, 7 YALE J. ON REG. 149, 250-57 (1990); Paul G. Mahoney, Securities Regulation by Enforcement: An International Perspective, 7 YALE J. ON REG. 305 (1990).

name"—the name of the investor's broker-dealer—as is done in the United States. This method of clearance and settlement remains common in depositories outside of the United States in countries including Croatia, India, Indonesia, Malaysia, and Sri Lanka. Such a design prevents investors from establishing nominee accounts and then acting as *de facto* market makers from a jurisdiction that has not effectuated a MOU with the Commission.

Certain *provisos* accompany this proposal. First, the SEC should register any number of IGSMs that meet regulatory standards. If there were only one such system, innovation would suffer due to lack of competition. Second, central to the recommendation of this essay is that issuers would be given the option of having their shares traded on a single market, rather than having their shares traded on any number of markets without their consent. Third, once a stock is listed on an IGSM, it should not be traded on another market that does not consolidate all orders in a price/time priority book with the IGSM. Otherwise, the efficiencies gained by order flow consolidation would be lost by fragmentation similar to that within the NMS.

C. Benefits of the Code-Based IGSM Approach

1. An Optimal Approach Through Regulatory Competition

The notion of an IGSM is supported by several economic theories of securities markets. For example, Professor Mahoney argues that a market has incentives to create optimal rules. He argues that if the SEC did not require the use of GAAP, the NYSE might enact a lower standard of accounting requirements. However, this lower standard likely would work more efficiently than the SEC's current regulation of the property rights that the NYSE has in its listings rules. This proposal permits an IGSM to as-

²⁴³ See Ruckrich, supra note 171. In Japan and France, clearing for futures and options trading takes place within the exchange. See SCOTT & WELLONS, supra note ‡, at 15-8. As an alternative approach, the IGSM could utilize the existing clearance and settlement infrastructure. The National Securities Clearing Corp. ("NSCC") processes 99% of all equity trades in the United States. See id. at 16-11. Several foreign clearing houses are currently linked with the International Securities Clearing Corp., a subsidiary of NSCC. The International Securities Clearing Corp. has links with the International Stock Exchange (London), CEDEL (Luxembourg, which is linked to twenty depositories and custodians in Europe and Asia), the Japan Securities Clearing Corp. (Tokyo Stock Exchange), the Central Depository of the Stock Exchange of Singapore, and the Canadian Depository of Securities (Toronto). See id. at 15-13. The dominant foreign clearing houses, Cedel (presently, "Clearstream") and Euroclear, were granted exemption from the registration requirements of the Exchange Act by the SEC. See id. at 15-46 to 15-47.

²⁴⁴ See Mahoney, supra note 12, at 1497.

²⁴⁵ See id. The listing requirements adopted need not be lower than those of the host country. Der Neuer Markt (a subsidiary of Deutsche Börse Group) is an example of a new exchange that raised the disclosure regulations of the host country. Der Neuer Markt raised disclosure standards by requiring issuers to make quarterly reports in accordance with GAAP

sess home country disclosure standards from multiple jurisdictions and to adopt the listing requirements that it determines to be optimal. The centralized price/time priority order book of the IGSM, moreover, prevents the regulatory free-rider externality that is illustrated by the NASDAQ Ten being traded on an ancillary market such as the EASDAQ.

The IGSM proposal comports with the theory of regulatory competition. The IGSM would place the regulatory regimes of the issuers' home countries into direct competition. The theory of regulatory competition provides that regulators compete on a state as well as international level to produce efficient regulatory requirements.²⁴⁶ In theory, regulatory competition produces this effect, because regulators have incentives for issuers to organize in their jurisdiction for reasons such as revenue or employment.²⁴⁷ The IGSM proposal need not enter the debate over whether regulatory competition creates a race to the top or the bottom, ²⁴⁸ or whether the premise is even correct that various securities regulatory bodies compete with each other.²⁴⁹ If securities regulators compete on an international level, the IGSM promotes regulatory competition by placing issuers in the same market with equal standards for execution, transparency, and surveillance. Consequently, the relative efficiencies of the issuers' home country disclosure standards become apparent in high relief. If regulators do not compete, then this attribute of the IGSM creates a level platform on which investors can account for the various relative efficiencies of home country disclosure requirements in pricing.

2. Use of the Internet to Expand the Efficient Digital Frontier

Professors Gilson and Kraakman in *The Mechanisms of Market Efficiency*, presented another theory supporting an IGSM.²⁵⁰ The IGSM pro-

in German and in English. See Announcements, Neuer Markt, at http://www.neuer.markt.de/INTERNET/NM/home/index e.htm (last visited Apr. 21, 2000).

²⁴⁶ See, e.g., Lucian A. Bebchuk, Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law, 105 HARV. L. REV. 1435, 1507-08 (1992); Roberta Romano, Competition for Corporate Charters and the Lessons of Takeover Statutes, 61 FORDHAM L. REV. 843 (1993).

²⁴⁷ See Uri Geiger, The Case For Harmonization of Securities Disclosure Rules in the Global Market, 1997 COLUM. BUS. L. REV. 241, 290.

²⁴⁸ See Lucian A. Bebchuk & Allen Ferrell, Federalism and Corporate Law: The Race to Protect Managers from Takeovers, 99 COLUM. L. REV. 1168, 1168 n.12 (1999). Compare Choi & Guzman, supra note 196 (arguing for regulatory competition), with Fox, supra note 230 (arguing against regulatory competition).

²⁴⁹ See Geiger, supra note 247, at 290-94. But see Longstreth, supra note 208, at 334 ("Yet the United States is virtually alone in traditionally debating regulatory, tax, and other conditions affecting the financial services industry with little reference to the potential consequences they hold for the industry's ability to compete internationally.").

²⁵⁰ See Ronald J. Gilson & Renier H. Kraakman, The Mechanisms of Market Efficiency, 70 VA. L. Rev. 549 (1984).

posal comports with transacting securities over the Internet because the Internet produces low informational and transactional costs for trading equities, and if "capital market efficiency is a function of information costs, then economizing on information costs pushes the capital market in the direction of greater efficiency." To take this theory one step further, as Professor Coffee noted, "[t]he costs of acquiring and processing information has long been recognized as one of the constraints that determine the boundaries of the efficient market." The proposed IGSM utilizes the vast global network of the Internet to consolidate as many orders for transactions as possible. It accomplishes this task at a very low informational and transactional cost so that geopolitical borders do not constrain the efficient boundaries of the market.

In contrast, the territorial approach that the various national securities regulators utilize serves to fragment global order flow by restricting the source of orders over the Internet to those countries in which an exchange or intermediary is registered.

3. Use of Code-Based Regulation to Implement Real-Space Values of Securities Regulation in Cyberspace

There has been an extraordinary rise in Internet-related securities frauds.²⁵³ One of the attributes of the IGSM is that its architecture can be "closed" to a degree that is optimal for efficiency, as well as investor protection and confidence in the market. One can design the architecture of an IGSM to consolidate for the regulator comprehensive information about an issuer and all trades in its shares. For example, an IGSM would have the capability to maintain in a single data base all of the disclosure made by an issuer, information disclosed during electronic road shows ("e-road shows"), all records of transactions in the issuer, and all solicitations of investors by IGSM members to purchase shares of the issuer.²⁵⁴ Access codes and encryption would restrict access to this information.

For example, a system of *regulation by code* could be established whereby access to information concerning an issuer that is traditionally "public information," such as prospectuses and periodic financial reports,

²⁵¹ Id. at 597.

²⁵² Coffee, supra note 68, at 1198.

²⁵³ See generally Michael A. Sussman, The Critical Challenges From International High-Tech and Computer-Related Crime at the Millenium, 9 DUKE L.J. 451 (1999); SEC, Internet Sweep Media Packet, Release No. 98-117 (October 28, 1998) [hereinafter Internet Sweep Media Packet], reprinted in 2 SECURITIES LAW & THE INTERNET, supra note 70, at 439; SEC, SEC Continues Internet Fraud Crackdown, Release No. 99-24 (Feb. 25, 1999) [hereinafter Internet Fraud Crackdown], reprinted in 2 SECURITIES LAW & THE INTERNET, supra note 70, at 487; Hunt, supra note 146.

²⁵⁴ This information is presently available to the SEC, but it is not compiled in a comprehensive fashion. *See* Exchange Act, 17 C.F.R. § 240.17a-3to 17a-4.

would be completely "open." Anyone with the ability to log onto the Web could acquire the information. Potential members of an underwriting syndicate would have exclusive access to data underlying e-road shows. Access to traditionally non-public information would be encrypted and the access code to it would be carefully protected. Access to a chat room concerning an issuer could be limited to the degree that promotes accountability among those who post to it.

In contrast to the IGSM Approach, many of the securities frauds perpetrated over the Internet involve solicitations made by in the "open" fora of the Internet chat rooms. "Regulators have expressed concern about the vulnerability and potential for fraud on the Internet stock discussion boards, where it is easy to post false information to a wide audience." ²⁵⁵ Those accused by the SEC of manipulating stocks via Internet "chat rooms" range from a fifteen-year-old to a tree trimmer to a third-year law student. ²⁵⁶ Certainly, investors always will be subject to such solicitations. However, IGSM access could be closed to the degree that investor solicitations and chat rooms are consolidated under the auspices of the IGSM-sanctioned data base that was subject to surveillance. In such a way, the IGSM can be designed to further the fundamental objectives of investor protection and confidence in the market. Thus, the IGSM proposal seeks to implement Professor Lessig's thesis that "if we decide to preserve values from real space, we need to think about how."

The IGSM reduces, but does not eliminate, several enforcement issues presented by the Targeting Approach. This reduction results because the IGSM would use systems architecture to meet investor needs for an Internet-based exchange. Without a regulated exchange to fill this need, the technology exists for an unregulated exchange to fill this void. Professor Coffee provided a hypothetical example that illustrates why the IGSM proposal may be more forward-thinking than the Targeting Approach. He hypothesized that an entrepreneur in Central Europe or Southeast Asia began making a market in some foreign stocks, and perhaps some well-known U.S. equities. This entrepreneur has no assets in the United States and does

²⁵⁵ John Emshwiller, SEC's Lawsuit Alleges Tree Trimmer Branched Out Into Internet Stock Fraud, WALL St. J., Apr. 11, 2000, at C15; see also Internet Sweep Media Packet, supra note 253; Internet Fraud Crackdown, supra note 253 (both citing examples of SEC enforcement actions for fraudulent conduct in Internet chat rooms).

²⁵⁶ See Emshwiller, supra note 255; Teenage Trader Runs Afoul of the SEC as A Stock Touting Draws Charges of Fraud, WALL St. J., Sept. 21, 2000, at C1 (describing SEC enforcement action against fifteen-year-old for manipulating securities using Internet message boards); Michael Schroeder, Georgetown Students Draw Web Investors—And an SEC Bust, WALL St. J., Mar. 3, 2000, at A1 (describing SEC enforcement action against three Georgetown University law students for manipulating securities using the message boards of Yahoo! Inc. and Raging Bull).

²⁵⁷ CODE, supra note 154, at 84, 108.

²⁵⁸ See Coffee, supra note 68, at 1228-29.

not target or send e-mail to the United States. However, the Internet makes this information available to those in the United States who want it. Further, let us assume that this exchange becomes very popular due to its low costs and fast execution, and as a result, U.S. investors gravitate to it. The Professor queries, "what can the SEC do?" 259

The answer to Professor Coffee is that the SEC will be able to check whether the foreign market maker has a restrictive legend on its Web site. Without the assistance of the regulator where the market maker is physically located, however, it will be nearly impossible to establish whether the operator was actually taking steps necessary to prevent U.S. persons from using the foreign system. Although the Commission can theoretically obtain jurisdiction over a foreign-based cyberfraudster using the Schoenbaum test, 260 the Commission may have the practical difficulty of effectuating any enforcement action if the defendants are located in a jurisdiction without an effective Mutual Legal Assistance Treaty or MOU with the United States. Thus described, the IGSM proposal looks at securities activity over the Internet in a more prospective manner than the Targeting Approach by advocating that market architecture be utilized to create a global market that can be regulated by the SEC.

4. Resolution of Ongoing Issues Concerning the NMS

In Section II(A)(6), this essay set forth the ongoing issues that have beset the NMS: consolidation-fragmentation of order flow, POF, and transparency. The essay further revealed that these issues were exacerbated when order flow is directed to a foreign market and not reported on the NMS. Simply stated, the IGSM resolves these issues because the system

²⁵⁹ Id. at 1229. Such an exchange is no longer hypothetical. Small Xchange.com, an Internet-based exchange registered in the British Virgin Islands, was recently launched. See Odd Couple's Internet Stock Exchange Frustrates Italian Regulators Who Want to Clip It, WALL St. J., Aug. 18, 2000, at C1. Small Xchange.com is in its "test phase." See id. The exchange's Web site identifies eight listed companies. See id.

²⁶⁰ See Schoenbaum v. Firstbrook, 405 F.2d 200 (2d Cir. 1968). The court in Schoenbaum set forth the "effects test." Pursuant to the effects test, a district court has subject matter jurisdiction over a violation of the Exchange Act, "although the transactions which are alleged to violate the Act take place outside the United States, at least when the transactions involve a stock registered and listed on a national securities exchange, and are detrimental to the interests of American investors." Schoenbaum, 405 F.2d at 208.

A multi-national firm with offices in the United States may experience difficulties in responding to domestic investigative subpoena. See In re Grand Jury Proceedings, U.S. v. Bank of Nova Scotia, 740 F.2d 817 (11th Cir. 1984), cert. denied, 469 U.S. 1106 (1985). In that case, the Eleventh Circuit upheld civil contempt sanctions against Bank of Nova Scotia for failure to make prompt subpoena production. The Bank argued that the delay was due to the location of responsive documents in the Bahamas and Cayman Islands, and that production would have violated the secrecy laws of those jurisdictions. The court rejected this argument, holding that the Bank had chosen to establish business in two jurisdictions with inconsistent laws and was in a position to choose how to meet its legal obligations.

design permits IGSM-listed securities to be traded only in a single market. Therefore, trading would be completely consolidated, and there would be no opportunity for payment of order flow. Similarly, because all orders would be placed in time/price priority in a centralized book, the IGSM would provide investors with a completely transparent market. Moreover, unlike the NMS, which consolidates trading information, the IGSM would consolidate execution, thereby preventing trade-through. Furthermore, the IGSM would accomplish these goals without having to utilize the fine distinctions between broker-dealers, ATSs, SIPs, and exchanges that are utilized in the SEC's current approach. Such fine distinctions are difficult for market participants to implement on a domestic basis and possibly unenforceable outside the United States. Finally, the IGSM could be designed to permit completely disintermediated trading, ²⁶¹ one of the frequently overlooked objectives of the NMS.

D. Possible Objections

1. Systems Failure

The Pavlovian response to this proposal is that the Internet is too unsafe a medium of communication for the creation of a stock exchange. After all, those who object can point to instances in which Internet systems were subject to system breakdowns and intrusions by hackers.²⁶² This objection is well taken. For example, on February 9, 2000, hackers temporarily seized the Web sites of Charles Schwab and E*Group (the largest and second largest on-line brokers in the United States). 263 For reasons prompted by these occurrences, this essay proposes that the Commission not grant registration to an Internet-based stock exchange without considering the safety and soundness of the exchange's systems architecture to ensure investor protection and access, and market stability. In this regard, the substantial volume of order flow to on-line brokers over the Internet and the number of European bourses with remote cross-border trading set forth in Section II establishes the technical feasibility of the IGSM. Finally, it is noteworthy that even at the time of the Market 2000 Report, the existing technology supported a Single Market Approach in the United States.

²⁶¹ See Exchange Act § 11A(a)(1)(C)(v); 15 U.S.C. § 78k-1(a)(1)(C)(v) (1994).

²⁶² See, e.g., Julia Flynn, et al., Computer Snag Halts London Market for 8 Hours, WALL St. J., Apr. 6, 2000, at C14; Kara Scannell, NASDAQ's Delays During Record Trading Day Raises Concerns of Computer Systems' Capability, WALL St. J., Apr. 9, 2000, at C9; Sussman, supra note 253, at 453-57 (setting forth examples of hacker intrusions); The Internet Under Siege: Stalking The Hackers, WALL St. J., Feb. 10, 2000 at B1; see generally On-line Investing: Growing Pains, WALL St. J., June 14, 1999 at R (compiling articles).

²⁶³ See Rebecca Buckman, Cyberassaults Raise Jitters for Investors, WALL St. J., Feb. 10, 2000, at Cl.

2. Portable Reciprocity Approach

One may object that the functions of the IGSM may be better carried out by sovereigns engaging in Portable Reciprocity. The Portable Reciprocity approach also utilizes the theory of regulatory competition.²⁶⁴ This theory is based on the idea of reciprocity, where one country acknowledges the laws of another country. In the field of international securities offerings, reciprocity means that a foreign company could issue securities in a host country pursuant to the home country's disclosure rules. Portable Reciprocity "goes one step further"²⁶⁵ by permitting issuers to select the law of any country participating in the reciprocity agreement, regardless of the location of issuer or the securities transaction. Accordingly, "[a] Japanese company, for example, could choose German law to cover its securities offering with the United States and all other participating jurisdictions."²⁶⁶

Although the Portable Reciprocity approach has applicability to the transnational trading securities on the Internet, 267 this innovative proposal suffers from two practical problems. Primarily, the issuers would have to be accepted for listing by an exchange. It is unclear whether U.S. exchanges would accept for listing issuers from reciprocating countries. In this regard, the authors note that exchanges do not compete across national borders due to the existence of a dominant exchange in each country. 268 As the data set forth herein²⁶⁹ establishes, this observation is not correct as an empirical matter. The existence of POF establishes that exchanges compete fiercely for order flow in domestic markets. The consolidation of exchanges in European markets supports the competitive nature of those mar-Secondly, serious confusion would result if issuers on a U.S. exchange used differing disclosure and listing standards, rather than the single listing requirements and disclosure standards of their home country. The IGSM proposal promotes limited regulatory competition, but does not go as far as the proposal for Portable Reciprocity, which creates too many independent variables concerning any given issuer for investors to conduct workable comparison of issuers using techniques of fundamental analysis.

3. Global Coordinator

One may object that the self-regulatory functions of an IGSM under the auspices of the SEC would be better carried out by the regulatory

²⁶⁴ See generally Choi & Guzman, supra note 196.

²⁶⁵ Id. at 907.

²⁶⁶ Id. at 908.

²⁶⁷ See id. at 915.

²⁶⁸ See id. at 946.

²⁶⁹ See supra notes 112-113, 129-133 and accompanying text.

"Global Coordinator" described *supra*.²⁷⁰ This proposal also suffers from two practical difficulties. Primarily, as the commentator advocating the Global Coordinator conceded, no such organization exists to fill the role of the Global Coordinator.²⁷¹ IOSCO, "the leading candidate" to fill this role, does not possess any authority over member jurisdictions, as does an organization like the WTO.²⁷² Moreover, IOSCO is in no position to develop the institutional capability to act as Global Coordinator in any foreseeable future, as the General Secretariat of IOSCO is staffed by only six people.²⁷³ Secondly, even if IOSCO were to develop the institutional capability to become a Global Coordinator, serious efficiency concerns arise about the creation of a superarching bureaucracy to regulate the existing bureaucracies that take the form of the national securities regulatory bodies.

4. Trading in the NASDAQ Ten Issues is De Minimus

A fair criticism that can be leveled at this essay is that regardless of the US\$ 3.4 trillion in market capitalization of the NASDAQ Ten, the trading volumes of these issuers on the EASDAQ are so small as to be *de minimus*. On March 22, 2000, for example, the daily volume for Microsoft Corp. on the NASDAQ was 31.8 million shares, versus 554 on the EASDAQ.²⁷⁴ From this, one can conclude that the lack of reporting of the EASDAQ trades to the NMS is inconsequential. In response to this objection, Section II(B) *supra*, revealed the proliferation of ATSs, from transacting 13% to 20% of trading volume in NASDAQ-listed issuers in a period of four years. This development indicates how quickly markets can proliferate in the present high technology and globalized market environment. Moreover, the activity in the "fax market," set forth in Section II(C) *supra*, indicates substantial volumes (7 million shares per day in 1994), which provides sound justification for policy reform.

²⁷⁰ See supra notes 225-227 and accompanying text. For the proposal that an SRO should be established for Internet-based exchanges, see Daniel M. Gallagher, Move Over Tickertape, Here Comes the Cyber-Exchange: The Rise of Internet-Based Securities Trading Systems, 47 CATH. U. L. REV. 1009 (1998).

²⁷¹ See Geiger, supra note 225, at 1800-01.

²⁷² See id. at 1801.

²⁷³ See IOSCO 1998 ANNUAL REPORT, supra note 10.

²⁷⁴ Compare http://finance.yahoo.com/q?s=MSFT (last visited Mar. 22, 2000) with http://www.easdaq.com (last visited Mar. 22, 2000). This Internet search revealed similar disparities in the volumes of NASDAQ Ten issues traded on the EASDAQ compared to the NASDAQ. While each of the NASDAQ Ten has an average daily volume in the millions of shares on the NASDAQ, the EASDAQ transacts volumes in these issuers in the thousands of shares.

5. Institutional Capacity of the SEC

This essay also is subject to the criticism that in response to a complicated problem that incorporates law, technology and economics; it proposes the architecture of the IGSM in very general form. One can argue that the devil is in the details of implementing such a proposal. Furthermore, even if a consortium of market participants could create a detailed implementation plan for an IGSM, the SEC's lack of institutional capacity and limited experience "to regulate by code" described supra²⁷⁵ would prevent it from granting registration to an IGSM. In answer to this criticism, it is important to note that the SEC has dramatically increased its efforts in regulating the Internet. In July 1998, the Commission created the "Cyberforce" within the Division of Enforcement to combat Internet based securities fraud.²⁷⁶ Within three months, the Cyberforce had charged 44 stock promoters with using the Internet to engage in securities fraud. Within one year, the Cyberforce had instituted over 100 civil actions regarding Internet securities fraud. Moreover, Section II(C)(2)(e) supra indicates that the Commission is increasingly setting general standards for the systems of participants. This leads one to expect that the Commission is up to the task of developing the personnel resources to address applications for registration by IGSMs.

6. Inability of Issuers to Influence Consolidation of Order Flow

A frequent criticism of this essay is that despite the systems architecture of the IGSM, shares of IGSM-listed issuers will be traded eventually on various markets, just as shares of the same issuer are traded on the different market centers within the NMS. Thus, the criticism argues that the beneficial efficiency effects of the global consolidation of order flow will eventually be diminished. This criticism speaks more to the way we think about corporate law and the existing trading environment, than the capabilities of an IGSM. We generally view the shares of listed companies as being freely transferable. However, it has been long established that "[r]easonable restrictions on share transfers may be imposed, thereby injecting into the corporation the partnership principle of delectus personae."277 Share transfer restrictions are generally used to keep a corporation "closely held," but they are also adopted by publicly-held issuers.²⁷⁸ Such share transfer restrictions are generally utilized in the form of restricted shares for management and employee compensation plans. The general rule concerning a share transfer restriction is that it must be for a lawful

²⁷⁸ See the Law of Corporations, supra note 277, at § 281.

²⁷⁵ See supra text accompanying notes 154-168.

²⁷⁶ See generally Hunt, supra note 146; see also SEC Acts With Cyberspeed to Halt Suspect Trades, WALL St. J., Aug. 7, 2000, at C1.

²⁷⁷ Harry G. Henn & John A. Alexander, The Law of Corporations and Other Business Enterprises 131 (3d ed. 1983) [hereinafter the Law of Corporations]. *Delectus personae* means "choice of the person." Black's Law Dictionary 438 (7th ed. 1999).

purpose²⁷⁹ and must not constitute an unreasonable restraint on alienation.²⁸⁰ Due to the broad investor access provided by an IGSM, a share restriction that limits transferability (other than, for example, gifts or block trades) to transactions made on the IGSM appears to meet these requirements. Indeed, the argument could be made that such a transfer restriction would promote efficient alienation of IGSM-listed securities due to the consolidation of order flow. In non-U.S. jurisdictions, such a transfer restriction in a corporate charter may be problematic.²⁸¹ This difficulty, however, could be overcome by means of a domestic re-incorporation.

The criticism that an IGSM will not prevent fragmentation of order flow among various markets reveals our preconceptions about federal securities regulation. We are accustomed to thinking of shares of public issuers as being freely alienable, but for shares issued as part of a compensation package. However, with regards to unlisted trading privileges, Section 12(f) of the Exchange Act addresses the extension of unlisted trading privileges by exchanges and national associations, but does not address the actions of issuers. Moreover, Section 12(f) gives the Commission flexible regulatory authority over the administration of unlisted trading privileges. For example, from the establishment of the NMS until 1987, the Commission's policy was that Tier I of the NMS, which included most active OTC issues, was mandatory; however, less active Tier II securities required application by the issuer to be included in the NMS. Since 1987, the Two Tier system ceased to operate at the NASD's initiative, and the prevailing policy of Congress, the Commission and exchanges has been to deem is

 $^{^{279}}$ See, e.g., Greene v. E.H. Rollins & Sons, 22 Del. Ch. 394, 2 A.2d 249 (Ch. 1938). See generally the LAW of Corporations, supra note 277, at 758.

²⁸⁰ See generally THE LAW OF CORPORATIONS, supra note 277, at 758.

²⁸¹ For example, Swiss corporate law utilizes the concept of qualified registered shares ("Vinkulierte Namenaktien"). For these shares, company charters may provide that the board of directors can refuse to consent to the transfer of the shares (in case of refusal, all financial rights are transferred and the voting rights are suspended). The permissible reasons for refusal are different for corporations traded on stock exchanges and private corporations. While the board of the former company may practically only block the transfer when a shareholder acquires more shares than a set percentage limit, the latter may have reasons to refuse that relate to the company's purpose or economic independence of the enterprise. See Article 685d Swiss Code of Obligations. Therefore, under Swiss Law it is not possible for a company charter to require that the shares be traded on a particular stock exchange.

²⁸² Exchange Act, 15 U.S.C. § 78l(f). See generally Amihud & Mendelson, supra note 96, at 1411-1425 (analysis of federal securities law's application to unlisted trading privileges)

²⁸³ See Designation of National Market System Securities, Exchange Act Release No. 34-17549, 22 SEC Docket 22, 25 (Feb. 17, 1981).

²⁸⁴ See Self-Regulatory Organizations; National Securities Clearing Corporation; Order Granting Approval to a Proposed Rule Change, Exchange Act Release No. 34-24635, 38 SEC Docket 152 (Apr. 17, 1987).

²⁸⁵ See Unlisted Trading Privileges Act of 1994, Pub. L. No. 103-389 (1994) (eliminating requirement of Commission approval for grant of unlisted trading privileges).

suer consent unnecessary to the extension of unlisted trading privileges on multiple markets. It is noteworthy, however, that the Exchange Act permits the Commission by rule or regulation to exempt unlisted trading of an issue when "consistent with the maintenance of fair and orderly markets, the protection of investors and the public interest, and otherwise in furtherance of the purposes of this title." 286

V. CONCLUSION

Dramatic changes in global markets and technology have far outpaced the regulation of market structure due to the Commission's dependency on incremental modification to the NMS to accommodate changing conditions. With respect to the regulation of global securities market structure and the Internet, this essay has recommended that the Commission should reconceptualize its approach from the current focus on territoriality that has produced the Targeting Approach, to a focus on systems architecture. Such a shift in focus would bring the Commission's regulation in line with the medium that it is attempting to regulate, one comprised of computer code and structured to transcend geopolitical borders. As Table 8 illustrates, the existing regulatory approach to global securities markets has created a system of inconsistent extraterritorial jurisdiction that has become more expansive and uncertain due to the Targeting Approach being applied to securities activity over the Internet.

This essay argues that it is optimal for industry participants to create a global exchange with an architecture that will satisfy the regulatory concerns of the SEC, and it is an invitation for them to do so. Indeed, implementation of this proposal would vastly improve the transparency, liquidity, surveillance, and efficiency of the current trading platforms in the United States that utilize home country disclosure through the Pink Sheets. Certainly, the rewards of such an accomplishment would be great in light of the large global market that such an exchange could service due to the low transactional costs that the Internet provides to investors regardless of their location. Therefore, the essay argues that we need to reconceptualize the role of home country disclosure in the U.S. market structure. After all, substantial foreign issuers like Nestle and Deutsche Bank were once traded on the Pink Sheets. Thus, a market for issuers using home country disclosure need not be for illiquid or non-transparent issues.

As can be expected, the process of modifying the regulation of market structure in the United States spurs much debate, as different groups of market participants seek competitive advantage.²⁸⁸ Unfortunately, the de-

²⁸⁶ Exchange Act, 15 U.S.C. § 78l(f)(1)(E)(i) (2000).

²⁸⁷ See Geiger, supra note 247, at 263 n.92.

²⁸⁸ See Randall Smith & Greg Ip, Exchanges, Firms Wrestle Over Structure, WALL St. J., Mar. 1, 2000, at C1 (describing testimony before the Senate Banking Committee in which

bate has also fostered nationalistic concerns "about 'keeping New York and America the center of global capital markets' in the face of overseas competition." Due to the expanse of global markets, a code-oriented regulatory system like an IGSM registration would further the efficiency and extend the borders of the domestic securities market. In contrast, we know that extending the NMS to foreign market linkages and application of the Targeting Approach to Internet securities transactions are ultimately unworkable solutions. However, the Commission's most recent Concept Release on fragmentation did not address the issue of global fragmentation. ²⁹⁰ It is high time for market participants to provide input on their ability to create a technologically cognizant, and therefore visionary, solution to the problem of global market fragmentation due to the Internet.

If the market participants succeed in creating an IGSM, its efficiency will draw issuers seeking listings to reduce their cost of capital. Ironically, the current debate on market structure is between domestic exchanges and market participants, not the issuers. Perhaps it is also time for issuers to realize their stake in an efficient global market, rather than having their shares traded in whatever venue market participants desire.

[&]quot;the heads of four major U.S. securities firms pressed strongly for their vision of a 'centralized' market structure" facing "objections from the heads of the N.Y.S.E., the NASDAQ" and a major discount brokerage firm.); see also Greg Ip et al., Market-Structure Debate Embroils Street, WALL St. J., Feb. 22, 2000, at C19.

²⁸⁹ Smith & Ip, supra note 288, at C1 (quoting Senator Charles Schumer (D., N.Y)).

²⁹⁰ See Fragmentation Release, supra note 134.

