



May 7, 2010

Via Electronic Mail: rule-comments@sec.gov

Ms. Elizabeth M. Murphy
Secretary
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: Concept Release on Equity Market Structure; File No. S7-02-10

Dear Ms. Murphy:

Managed Funds Association (“MFA”)¹ welcomes the opportunity to provide comments on the Securities and Exchange Commission’s (“Commission” or the “SEC”) concept release on Equity Market Structure (the “Release”).² We appreciate the Commission’s review, evaluation and continued efforts to further improve the U.S. equity market structure, and in turn, the efficacy of capital formation in this country.

I. INTRODUCTION

The Commission’s successful, well-designed market regulations, including implementation of the Order Handling Rules, Regulation ATS, decimalization and Regulation NMS, have reshaped the equity markets by removing anticompetitive barriers and promoting fair access to markets and market information. In doing so, the Commission’s regulations have fostered innovations in technology that have revolutionized investing in our equity markets, and promoted greater competition among marketplaces, to the benefit of investors. Most notably, the advancements in technology have empowered investors, both institutional and retail, with more sophisticated and efficient methods to access the markets and execute their investment strategies globally. In the process, these equity market developments have led to greater market liquidity and depth, tighter bid-ask spreads and lower transaction costs. These changes lower the cost of capital and enhance economic growth.

We also recognize, however, that—the regulations and technological and market innovations—in reshaping the equity market structure also raise new regulatory concerns that the Commission should evaluate. The Commission has already identified some of these issues, such as the regulation of non-public trading interest and risk management controls for broker-dealers

¹ MFA is the voice of the global alternative investment industry. Its members are professionals in hedge funds, funds of funds and managed futures funds, as well as industry service providers. Established in 1991, MFA is the primary source of information for policy makers and the media and the leading advocate for sound business practices and industry growth. MFA members include the vast majority of the largest hedge fund groups in the world who manage a substantial portion of the approximately \$1.5 trillion invested in absolute return strategies. MFA is headquartered in Washington, D.C., with an office in New York.

² Securities Exchange Act Release No. 61358; 75 *FR* 3594 (Jan. 21, 2010).

with market access.³ MFA submitted comments on the latter proposal and agrees that broker-dealers should have appropriate and pragmatic controls to prevent trading errors and to ensure compliance with applicable regulatory requirements; and that these controls should apply to both proprietary and customer business.⁴ We believe such measures would contribute to safeguarding our markets. Overall we commend the Commission for its thoughtful rulemaking in furtherance of a national market system, and support the Commission's efforts to review our rapidly developing market structure and to collect data to assist in its evaluation.

Congress historically has directed the Commission to focus on efficient capital formation, fair access to markets and timely dissemination of critical market data.⁵ In this respect, the Commission in its rulemaking should ensure that its regulations do not provide certain participants with competitive advantages over others. As long as regulations treat similarly situated participants the same, the success of individual participants should become a matter of competition, not regulatory advantage. The Securities Exchange Act of 1934 ("Exchange Act") does not support a distinction between long-term investors and short-term traders. Moreover, we believe the empirical data demonstrates the mutuality of interests that exists between market participants, whether they are short or long term investors. For these reasons, we believe that in evaluating market structure, the Commission should continue to focus on capital formation, price discovery and liquidity.

MFA represents the views of institutional investors, including registered investment advisers and private investment pools, whose investors include pensions, endowments, foundations and insurance companies. As investors, we believe that all market participants have greatly benefited from the competitive and technological advancements discussed further herein. Accordingly, we respectfully urge that any proposed rulemaking that results from the Release be supported by empirical data.⁶ Without empirical data to support changes, any rule-making that follows the Release could become a vehicle for costly, unintended detrimental consequences, and could reverse the global leadership status that the United States has earned over the past decade as

³ Securities Exchange Release No. 60997; 74 *FR* 61208 (Nov. 23, 2009). Securities Exchange Release No. 61379; 75 *FR* 4007 (Jan. 26, 2010) (hereinafter "Broker-Dealer Risk Management Controls Proposal").

⁴ Securities Exchange Act Release No. 61379; 75 *FR* 4007 (Jan. 26, 2010). The Commission recognizes that the "proliferation of sophisticated, high-speed trading technology has changed the way broker-dealers trade for their own accounts and as agent for their customers" and has given rise to increased use and reliance on "direct market access" or "sponsored access" arrangements. Through these arrangements, sophisticated customers are able to use technological tools to place orders and trade on markets with little intermediation by their broker-dealers. *Id.* at 4008. See letter to Elizabeth M. Murphy, Secretary, SEC, from Stuart J. Kaswell, Executive Vice President and Managing Director, Managed Funds Association on March 29, 2010 (providing comments on the Commission's proposed new Rule 15c3-5 under the Exchange Act regarding risk management controls for broker-dealers with market access) available at: <http://www.managedfunds.org/downloads/MFA%20Comments%20on%20BD%20Risk%20Mgmt.3.29.10.pdf>.

⁵ Exchange Act; H.R. Rep. No. 1383, 73rd Cong., 2d Sess. (1934); and S. Rep. No. 84-75, 94th Cong., (1975); H.R. Rep. No. 94-123, 94th Cong., 1st Sess. 50 (1975).

⁶ We also note that under Section 3(f) of the Exchange Act, in considering or determining whether an action is necessary or appropriate in the public interest, the Commission must consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation.

a result of tighter bid-ask spreads, reduced commissions and transaction costs, faster execution speeds, more democratic access, greater liquidity and increased market depth.⁷

II. EXECUTIVE SUMMARY

The Commission's regulations, including the Order Handling rules, Regulation ATS, decimalization and Regulation NMS, promoted equal regulation and fair competition among markets, and eliminated many unfair advantages among market participants. These regulatory advances democratized the markets and ignited technological innovation and competition, allowing for the growth of a widely used set of a set of technological tools and trading methods based on low latency technology. High frequency trading methods and low latency technology have delivered important benefits to investors and to our markets. They have lowered transaction costs for investors, increased the capacity of our markets, and created more competitive markets. Advancements in technology have empowered investors to better implement their investment strategies through the use of automated trading programs and high frequency trading execution techniques. As a result of market structure changes, many aspects of our equity markets—spreads, fees, execution speed, efficiency, and pricing transparency/reliability—have steadily and drastically improved over the last several years to the benefit of investors. Investors now receive better service from financial intermediaries and have lower-cost options for accessing markets and executing orders.

In responding to the Release's questions on market structure, we make the following observations:

- Long-term investors and short-term traders have a mutually beneficial relationship; each needs and benefits from the trading activity of the other. Initiatives to restrict short-term trading are likely to harm long-term investors through higher costs, decreased market efficiency, and reduced investor confidence.
- The Commission should focus on market liquidity and the resulting benefits in assessing the effectiveness of the equity market structure. As a direct result of past regulatory improvements and the technological advancements they encouraged, average daily trading volume has more than doubled since Reg NMS was implemented, which has led to narrower spreads, lower transaction costs and a lower cost of capital. Within just one decade, U.S. transaction costs went from being among the most expensive in the world to the cheapest.
- The increased volume of orders and order cancellations seen in today's markets is largely derived from the replacement of traditional market maker and specialist quotes with the indications of a willingness to transact by a large number of competing market participants, who rely on electronic execution methods to indicate their willingness to transact. A large segment of investors, including those using algorithmic or quantitative strategies, have been empowered by technology to design their own execution programs to respond quickly to price movements in our decimalized market by canceling stale orders. This increase in the volume of placed, cancelled and replaced orders is a sign of a competitive, well functioning, highly efficient electronic market with tight bid-ask spreads. This activity is not an indication of market abuse.

⁷ See discussion *infra* Sections III and IV.

- The soundness of our equity market structure was successfully tested during the Financial Crisis of 2008, when our equity markets performed remarkably well, in contrast to other markets. We do not see a need to place an affirmative and negative obligation on proprietary traders, and are concerned that doing so would raise costs for other investors and reduce market competition without providing any additional benefit. Moreover, Section 11A(a)(1)(C)(v) of the Exchange Act finds that it is in the public interest and appropriate for the protection of investors and the maintenance of fair and orderly markets and other goals to assure an opportunity, consistent with efficiency and best execution, for investors' orders to be executed without the participation of a dealer.
- For investors, the current market structure is fairer than it has ever been as it has fewer preferences for particular market intermediaries over other market participants in terms of providing and accessing liquidity.
- We strongly condemn trading on misappropriated information and applaud the Commission for highlighting the distinction between "frontrunning" and what the Commission describes as "order anticipation", which involves trading on public information. Trading is the process of attempting to profit by anticipating future prices of equities. We submit that order anticipation strategies based on publicly available information are an inherent and healthy part of the fabric of our markets and should be encouraged and not constrained.
- We do not believe there is a current market issue regarding what the Commission terms "momentum ignition" strategies. From our experience, we are unconvinced that such strategies are feasible or viable in today's highly efficient markets.
- Dark pools have greatly contributed to market innovations and competition, and are important avenues for investors to use in seeking best execution. Dark pools also have become an important component of the U.S. equity markets, and as such, we believe it's appropriate for the Commission to review dark pools as part of its overall review of the U.S. equity market structure.
- We do believe that additional information will help both policymakers and investors make better decisions. In that regard, we offer the Commission the following recommendations, which we believe will further strengthen the national market system, investor protection and the integrity of our capital markets:
 - We recommend that the Commission's Office of Economic Analysis develop and employ objective criteria to evaluate the effectiveness of the U.S. equity market structure for capital formation, including the impact of post-trade execution timing/location transparency for dark pools.
 - We recommend that the Commission require broker-dealers and connectivity vendors to establish timing standards in order execution latency and to disclose such standards to all current and prospective clients in order to insure that clients understand the level of order execution latency they are receiving, particularly how it compares to the connectivity provided to the broker-dealer's own proprietary or market making business lines.
 - We recommend that the Commission require broker-dealers and connectivity vendors to provide written disclosure to clients if they will use (or will provide to others who, in turn, will use) information based on the flow of a customer's investment activity in connection with a firm's proprietary or market making businesses.

- We recommend that the Commission require market centers to provide written disclosure when they or third-parties provide co-location services on a priority basis other than first available.

III. BACKGROUND AND MARKET OVERVIEW

A. Background

As noted in the Release, a primary driver of the transformation of equity trading has been the continual evolution of technological advancements and competition in the equity markets. The Commission's regulatory initiatives to implement and facilitate the development of a national market system for securities pursuant to its Congressional mandate has played an equally significant role in the transformation and democratization of the U.S. securities markets.⁸ To fully understand and appreciate the benefits of some of the market changes for investors, we believe it may be helpful to provide some background and identify some key regulatory actions, which have strengthened our markets.

In enacting Section 11A of the Exchange Act for a national market system, Congress stated that "the evolutionary process has been stunted and distorted by various rules and practices which, operating under the banner of regulatory need, have unnecessarily erected barriers to competition, insulated markets, and resulted in misallocations of capital, widespread inefficiencies, and potentially harmful fragmentation of trading markets."⁹ Section 11A directs the Commission in maintaining fair and orderly markets to assure: (1) Economically efficient execution of securities transactions; (2) Fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets; (3) The availability to brokers, dealers, and investors of information with respect to quotations and transactions in securities; (4) The practicability of brokers executing investors' orders in the best market; and (5) An opportunity, consistent with efficiency and best execution, for investors' orders to be executed without the participation of a dealer.

Pursuant to Section 11A of the Exchange Act, in 1996, the SEC adopted the Order Handling Rules to address the two-tiered markets that had developed from market makers publishing quotes in private electronic communication networks ("ECNs") that were better than the quotes they posted in the public markets.¹⁰ The Order Handling Rules narrowed bid-ask

⁸ See Section 11A of the Securities Exchange Act of 1934 ("Exchange Act"). In mandating a national securities market system through the passage of the 1975 amendments to the Exchange Act, Congress stated its objective was to "enhance competition and to allow economic forces, interacting within a fair regulatory field, to arrive at appropriate variations of practices and services" and that "[m]arket centers should compete and evolve according to their own natural genius and all actions to compel uniformity must be measured and justified as necessary to accomplish the salient purposes of the Securities Exchange Act". H.R. Report 94-123, 94th Cong., 1st Sess. 50 (1975).

⁹ H.R. Rep. No. 94-123, 94th Cong., 1st Sess. 50 (1975).

¹⁰ Securities Exchange Act Release No. 37619A; 61 *FR* 48290 (Sept. 12, 1996). The Commission also required market makers and specialists to display customer limit orders that were priced better than their quote or that added to the size associated with such quote.

spreads by as much as 30 to 40% and resulted in significant cost savings for investors.¹¹ Likewise, the regulatory change to decimalization led to narrower bid-ask spreads and had an immediate and direct impact on transaction costs for investors.¹²

In recognizing the growing significance of ECNs and the substantial benefits they provide to investors through more efficient and lower cost services than traditional intermediaries, in 1998 the Commission adopted Regulation ATS (“Reg ATS”).¹³ Reg ATS further encouraged innovation and competition of alternative trading systems (“ATs”) with traditional market intermediaries, such as market makers and specialists. Nevertheless, under the Intermarket Trading System (“ITS”) Plan,¹⁴ best execution standards, such as the ITS trade-through rule, prevented ATs systems from gaining meaningful market share from the primary listing markets. The trade-through rule prevented electronic systems from trading through manual quotes. Trading on primary listing markets continued to be dominated by market makers and specialists.

With the development of electronic markets, new communications and computing technologies evolved, making algorithmic and quantitative trading techniques more readily available to investors. The advent of new technology enabled all types of investors to trade more efficiently, to minimize transaction costs and to help address problems facing large traders, such as front-running and quote matching. Market developments included increased use of ATs for large block traders; greater use of algorithms by buy-side traders to break up large orders and decrease the market impact of trading; and the increased use by investors and proprietary traders of automated computer programs and high frequency order execution techniques to implement

¹¹ SEC Division of Market Regulation, Special Study: Electronic Communication Networks and After-Hours Trading, June 2000, at note 22 and related text, available at: <http://www.sec.gov/news/studies/ecnafter.htm>.

¹² In 2000, the Commission ordered U.S. markets to develop and implement a decimal implementation plan. Order Directing the Exchanges and the National Association of Securities Dealers, Inc. to Submit a Decimalization Implementation Plan Pursuant to Section 11A(a)(3)(B) of the Securities Exchange Act of 1934, Securities Exchange Act Release No. 42360, 65 FR 5003 (Feb. 2, 2000).

¹³ Securities Exchange Act Release No. 40760, 63 FR 70844 (Dec. 22, 1998) (hereinafter “Reg ATS Adopting Release”). As part of the National Securities Markets Improvement Act of 1996, Congress granted the Commission broad authority to exempt any person from provisions of the Exchange Act. *Id.* at 70846. The Commission wisely used this authority in promulgating Reg ATS and sought to close certain regulatory gaps that resulted from ATs being regulated as broker-dealers, while encouraging innovative new markets. Regulation ATS fosters innovation in new markets by providing an ATs with flexibility in registering as either a market participant or as a market—which can be especially important for new market entrants.

¹⁴ In 1978, the Commission approved the “Plan for the Purpose of Creating and Operating an Intermarket Communications Linkage”, the ITS Plan, filed by various exchanges for purposes of working toward a national market system. Securities Exchange Act Release No. 14661; 43 FR 17419 (Apr. 24, 1978). *See also* Securities Exchange Act Release No. 42212; 64 FR 70297 (Dec. 16, 1999) (providing a history of ITS).

The ITS Plan restrictions prevented market participants from trading through quoted prices at the floor based exchanges, and effectively limited ECN growth in listed securities. Securities Exchange Act Release No. 51808; 70 FR 37496 at 37501 (June 29, 2005) (herein “Reg NMS Adopting Release”). *See also* James J. Angel et al., Equity Trading in the 21st Century, February 23, 2010, at p. 33, available at: <http://www.knight.com/newsroom/pdfs/EquityTradinginthe21stCentury.pdf> (hereinafter “Angel et al.”).

their investment strategies.¹⁵ The benefit of these developments was evident in the substantially cheaper cost of trading Nasdaq-listed stocks and was duly noted by regulators.¹⁶

In 2005, the SEC adopted Regulation NMS (“Reg NMS”), which replaced the ITS trade-through provision that had protected manual quotes with an “order protection rule” to prevent trade-throughs of electronically accessible quotes.¹⁷ By promoting equal regulation and fair competition among markets, Reg NMS eliminated the advantage that the ITS trade-through provisions provided specialists and market-makers. It effectively forced marketplaces to switch from a floor broker system to an automated exchange system. Reg NMS democratized the markets and fostered technological innovation and competition. Investors, who a decade earlier had little choice but to send their orders to Nasdaq market makers and NYSE specialists, now have several markets from which to choose to send their orders and many more market participants with whom to trade.¹⁸

¹⁵ See Angel et al. at 32-39; and Cameron Smith, “Commentary: How High Frequency Trading Benefits All Investors”, Traders Magazine Online News, March 17, 2010 at <http://www.tradersmagazine.com/news/high-frequency-trading-benefits-105365-1.html>.

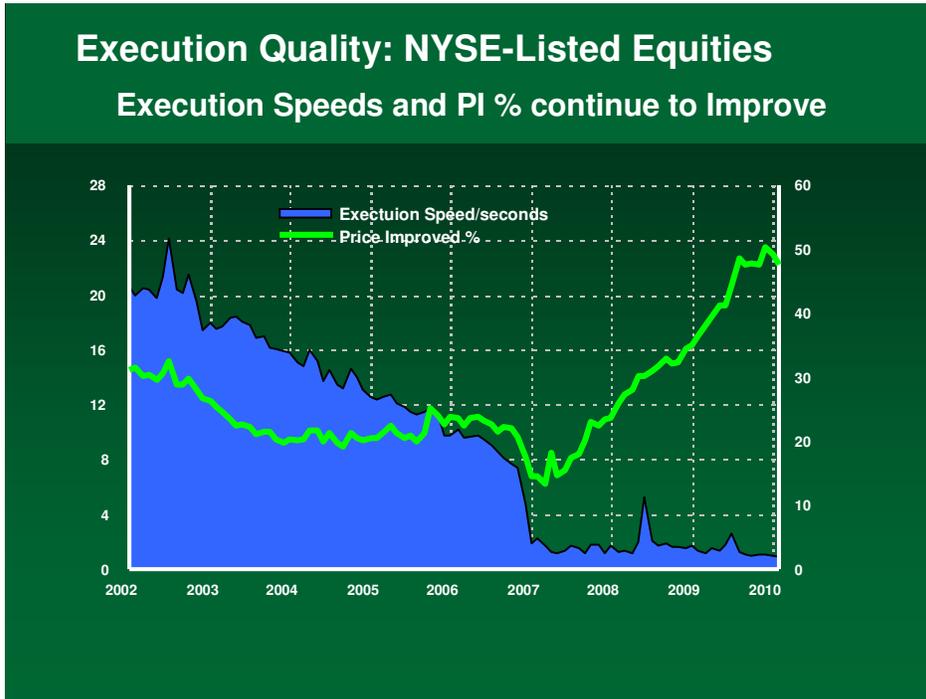
¹⁶ Angel et al.

¹⁷ Reg NMS Adopting Release.

¹⁸ Two notable enforcement cases, which may have further encouraged the development of new electronic markets, include the Nasdaq market maker price fixing and New York Stock Exchange (“NYSE”) specialist interpositioning cases. During the time of these occurrences, investors had little choice but to send their orders to Nasdaq and the NYSE.

In 1996, the U.S. Department of Justice and the SEC found that Nasdaq market makers engaged in a long-standing anti-competitive quoting convention by quoting only in quarter increments (25¢). By fixing transaction costs, market makers artificially inflated price spreads and forced higher transaction costs onto investors. See *In the Matter of National Association of Securities Dealers, Inc.*, Administrative Proceeding File No. 3-9056, Securities Exchange Act Release No. 37538 (Aug. 8, 1996); and U.S. Department of Justice, “Justice Department Charges 24 Major Nasdaq Securities Firms with Fixing Transaction Costs for Investors”, July 17, 1996, available at: http://www.justice.gov/atr/public/press_releases/1996/228403.htm.

In 2004, the SEC reached an enforcement settlement of more than \$240 million in penalties and disgorgement with five NYSE specialist firms for executing orders for their dealer accounts ahead of public customer orders and thus, breaching their duty to customers, between 1999 and 2003. SEC, “Settlement Reached With Five Specialist Firms For Violating Federal Securities Laws and NYSE Regulations; Firms Will Pay More Than \$240 Million in Penalties and Disgorgement”, March 30, 2004 available at: <http://www.sec.gov/news/press/2004-42.htm#att>. SEC, “Settlement Reached With Five Specialist Firms For Violating Federal Securities Laws and NYSE Regulations; Firms Will Pay More Than \$240 Million in Penalties and Disgorgement”, March 30, 2004 available at: <http://www.sec.gov/news/press/2004-42.htm#att>. See SEC, “Settlement Reached With Five Specialist Firms For Violating Federal Securities Laws and NYSE Regulations; Firms Will Pay More Than \$240 Million in Penalties and Disgorgement”, March 30, 2004 available at: <http://www.sec.gov/news/press/2004-42.htm#att>.



Source: Thomson Transaction Analytics¹⁹

Note: All NYSE stocks, All market centers, All executed market order shares (605-reported, 100-9999 shares)

¹⁹ Provided by Citadel Investment Group, LLC.



Source: Thomson Transaction Analytics²⁰

Note: All NYSE stocks, All market centers, All executed market order shares (605-reported, 100-9999 shares) (Spread measured in pennies.)

VIX ®	Change in Quoted Spread from 2002-2006 to April 2007-July 2009				Change in Percent			
	All NYSE	NYSE 100	All Nasdaq	Nasdaq 100	All NYSE	NYSE 100	All Nasdaq	Nasdaq 100
<15%	-\$0.0176	-\$0.0035	-\$0.0494	-\$0.0135	-11.0%	-19.9%	-31.6%	-48.4%
15-25%	\$0.0314	-\$0.0016	-\$0.0094	-\$0.0087	17.4%	-7.5%	-5.5%	-28.0%
25-35%	\$0.0450	-\$0.0088	\$0.0361	-\$0.0015	23.9%	-29.0%	25.4%	-6.1%
35-45%	\$0.0419	-\$0.0174	\$0.0350	-\$0.0019	22.5%	-46.4%	23.3%	-10.4%

Source: NYSE Euronext

B. High Frequency Trading

The Commission’s regulations to promote competition and reduce costs for investors were successful. The Order Handling Rules and Regulation ATS fostered the development of new electronic markets and enabled investors to use more sophisticated automated computer programs to trade. This environment presented increased competition for the major market centers, competition that fostered improvements in their technology and forced expansion of their capacity as market activity increased. These changes were significant factors that led to the reduction in trading costs. With the adoption of Reg NMS, trading costs fell even further as the market structure monopolies were eliminated and the timely flow of trade data was made available to all investors.

²⁰ Provided by Citadel Investment Group, LLC.

These market structure advances effectively enabled the growth of high frequency trading, a set of technological tools and trading methods based on low latency technology that were first developed in the early 1990's. Over time, high frequency trading (or "HFT") has found new applications that go beyond its early roots in proprietary trading. Investors of all types, regardless of their investment time horizons, broadly use HFT methods for efficient execution. Indeed, low latency execution methods have quickly become the standard execution platform offered by most broker-dealers. Today's traditional and newer liquidity providers also largely depend on HFT methods and either access the markets directly as broker-dealers or through an agency broker via sponsored access.²¹ Broker, exchange and investor trading technology all have become reliant on low latency technology.

The Release lists a number of characteristics attributed to HFT in an attempt to define it, such as high trade count, the use of high-speed and sophisticated computer programs, the use of co-location, short holding periods, high cancellation rates, and ending the trading day in a flat position.²² With the wide breadth of users of HFT methods and low latency technology, these characteristics are not shared by all of them. To obtain a true appreciation for HFT it is necessary to separate HFT into two applications: (1) the use of algorithms first devised by quantitatively-oriented traders for the purpose of execution of orders for all types of investors (*i.e.*, algorithmic trading); and (2) HFT proprietary strategies, including electronic market making, that require low latency technology and quantitative methods, and are intended to generate trading profits. Both groups use the same tools, the same types of orders, the same multiple market venues. HFT methods and low latency technology have delivered important benefits to investors and to our markets. They have lowered transaction costs for most investors, increased the capacity of our markets, and created more competition.

1. Algorithmic Trading

Beginning in the late 1990's, investors of all types adopted computer execution algorithms. This change constituted a great shift from largely manual trading methods to more efficient, lower cost algorithmic execution methods. These algorithmic trading capabilities enabled broker-dealers and investors to break up large orders to minimize market impact into more flexibly traded, lower profile, smaller orders; replaced expensive manual operations on both the investor and broker sides with more streamlined electronic trading desks; and generally lowered costs for most investors. While early quantitatively-oriented traders pioneered these methods, algorithmic trading is most commonly used today by investors to execute orders with maximum efficiency, lowest information leakage, minimum market impact and in the most cost-effective manner (*i.e.*, lowest level of commission costs).

2. High Frequency Trading Strategies

High frequency trading is commonly employed by investors and traders who seek to profit through the use of strategies that require algorithms and low latency technology. Trading techniques are the tactics or tools that investors with very different underlying investment strategies may use. There are many types of high frequency trading strategies, but in terms of the Commission's list of characteristics, we believe that

²¹ Broker-Dealer Risk Management Controls Proposal. *See supra* note 4.

²² Release at 3606.

by far the most common are electronic market making methods. To a large extent, these market makers have replaced more expensive, more centralized manual market makers of years past. However, it is important to bear in mind that the economic principles they employ – managing inventory risk to earn profits from providing liquidity – are identical. Other strategies include inter-market arbitrage where small price discrepancies are eliminated by market participants using ultra low-latency technology. These strategies provide increased liquidity and more timely/accurate price discovery for investors and traders alike.

Not all high frequency traders are pursuing the same investment strategies, nor do their strategies operate on the same time scale or require the fastest technology. Strategy holding periods can vary greatly, from seconds to seasons, with the shorter horizon strategies being more likely driven by fleeting arbitrage opportunities or market making, and the longer horizon strategies by forecasts of stock returns. While these strategies—and the skills needed to implement them—can vary widely, there is often much similarity in order placement methods and certain features of the transaction history trail. One similarity is that high order cancellation rates are common across many types of high frequency trading strategies.

While there are many types of high frequency trading strategies and investor demand for low latency technology, we do not believe that “harmful” strategies are prevalent but would welcome the opportunity to work with the Commission to help identify any strategies or practices that are detrimental to capital formation and liquidity.

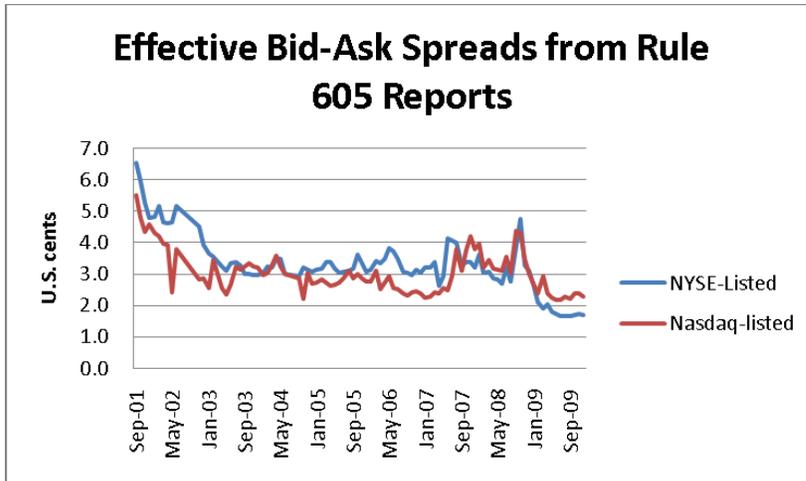
With respect to market share, HFT market share or volume is estimated at 50% or more of total U.S. equities trading volume.²³ While the media latched onto these estimates to suggest radical changes had overcome the markets, we believe those conclusions are false. Again, it is important to recognize that these figures, if accurate, represent the volume of shares executed using low latency technology to carry out investment or trading strategies, including algorithmic trading, and not the volume of shares from a single strategy or type of trader. To put the estimated HFT market share in context, we believe it’s helpful to compare it to the Nasdaq market maker market share in past decades. Prior to the recent market structure evolution, where all Nasdaq traded securities were traded through Nasdaq market makers, the market maker market share necessarily was greater than 50% of total volume as there was a Nasdaq market maker on at least one side of every trade, and frequently on both sides. Today, electronic traders using HFT methods and low latency technology have largely replaced the more traditional (expensive and less efficient) market makers of the past and the market share figures merely reflect that reality.

IV. CURRENT MARKET STRUCTURE

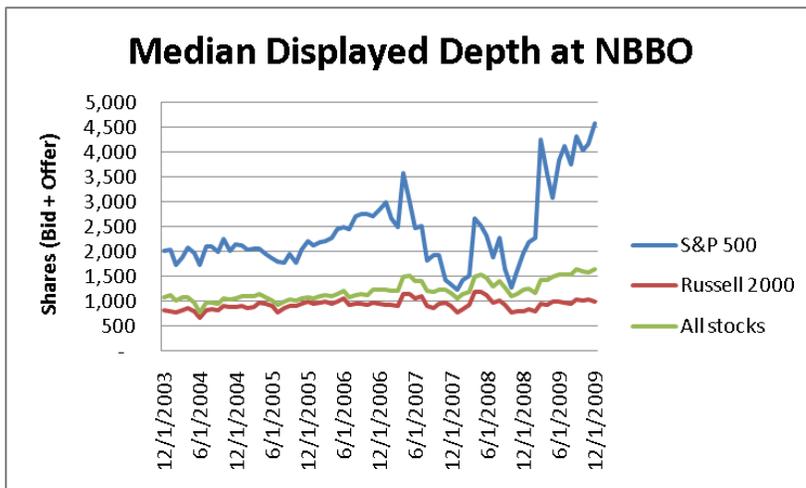
As a result of market structure changes, many aspects of our equity markets—spreads, fees, execution speed, market depth, efficiency, transparency and pricing reliability, for example—have steadily and drastically improved over the last several years to the benefit of the investing public (*see* charts below). Investors have measurably benefited from technological and regulatory changes and financial intermediaries now offer better service and more low-cost options for accessing markets and executing orders. Many assert that those benefiting most from

²³ Release at 3606.

these changes are, in fact, long-term investors—precisely the investor base on which the Commission is most focused.



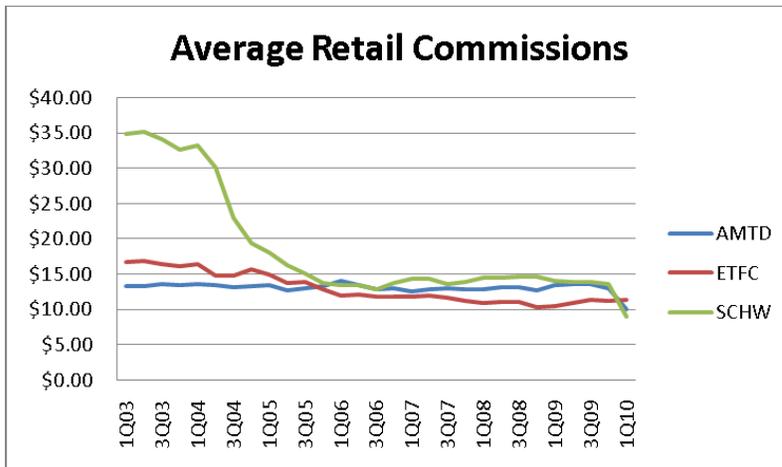
Source: Public Rule 605 Reports from Thomson, Market orders 100-9999 shares²⁴



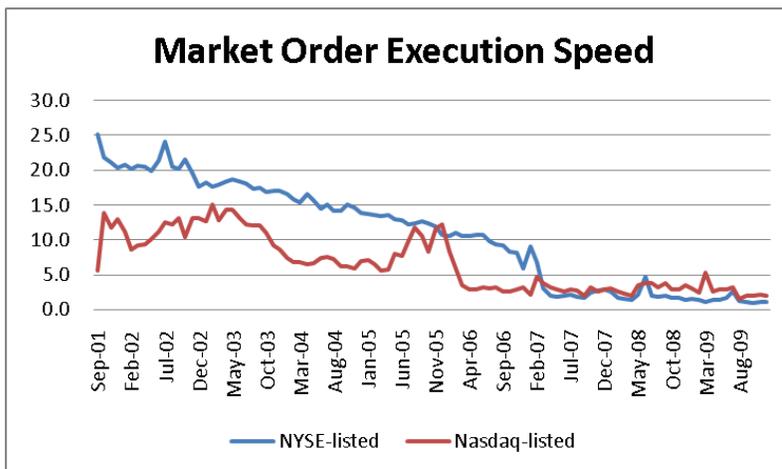
Source: Knight Capital Group²⁵

²⁴ As cited by Angel et al. at 10.

²⁵ As cited by Angel et al. at 14.



Source: Barclays Capital Equity Research²⁶



Source: Rule 605 data from Thomson for all eligible market orders (100-9999 shares)²⁷

Under the current market structure, market intermediaries have been forced to compete more and thus charge less, both in terms of explicit fees and implicit costs.²⁸ From 2001 to 2008,

²⁶ As cited by Angel et al. at 18.

²⁷ As cited by Angel et al. at 22.

²⁸ We believe the success of the current equity market structure in lowering direct and indirect transaction costs paid by all investors is also evidenced by the drastic drop in the market value of equity market intermediaries. Ten years ago, these intermediaries were extraordinarily profitable because they were able to extract large spreads from investors. For example, in June 2000, Merrill Lynch paid \$1 billion for Herzog Heine Geduld, a leading Nasdaq market maker. Three months later, Goldman Sachs paid \$6.5 billion for Spear, Leeds & Kellogg, a leading New York Stock Exchange floor specialist, Nasdaq market maker, and options specialist and market maker. In January 2010, LaBranche, one of five remaining specialists at the NYSE, agreed to sell its market-making operation for \$25 million to Barclays Plc. The NYSE specialist operation was the core part of the LaBranche business. LaBranche's stock price is down more than 90% from its peak in 2001. Another example is Knight Capital Group, which operates a leading market making business. Knight's stock peaked at over \$76 per share in 1999 and is worth less than \$15 today.

the average cost of trading NYSE-listed securities fell by 43%; dropping from among the costliest of the large markets (Japan, Germany, the UK and France) to the cheapest.²⁹ Similarly, from 2001 to 2008, the average cost of trading Nasdaq-listed securities fell by 45% from the most expensive to the second lowest in the world in terms of trading costs.³⁰ (See chart below.) HFT execution techniques have enabled investors and traders to supply the markets with liquidity and have in large part replaced the need for or role of traditional market makers. Significantly, users of HFT have replaced manual market-making by trading much more efficiently and at lower profit margins as evidenced by the lower total market-making spread that exists to provide liquidity to investors. These market participants' use of scalable technology has driven net revenue per share to a very small fraction of a penny; thus, even at today's higher trading volumes, the total spread captured is less than the amount captured by human market makers a decade ago. Gross revenue for an electronic market maker using HFT is estimated at \$0.001 and \$0.002 per share, or \$100,000 in gross revenue per day (100 million shares a day at \$0.001), while net revenue would be less after costs such as clearing, regulatory fees, technology, and related transactions used to hedge risk.³¹ Simply sitting in a privileged position and collecting wide spreads is no longer a viable business strategy for market makers in the U.S. equity markets.

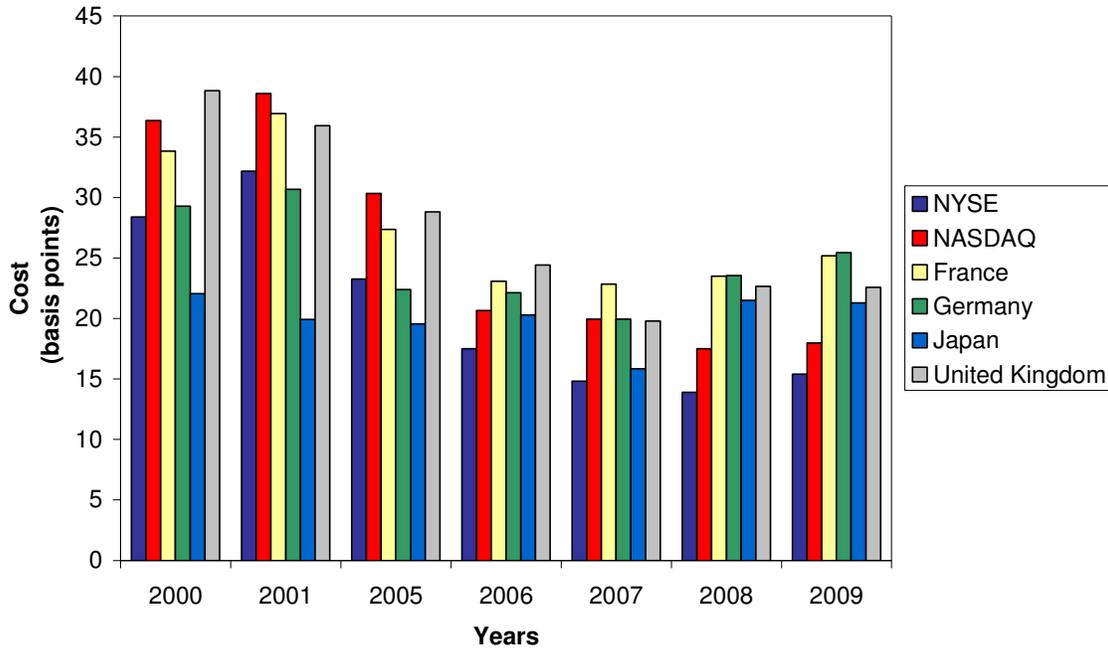
²⁹ Elkins/McSherry, Institutional Investor.

³⁰ *Id.* Remarkably, costs for trading NYSE and Nasdaq-listed securities continued to decline in 2008 when trading costs around the world increased. *Id.*

³¹ Rosenblatt Securities Inc., Market Structure Analysis & Trading Strategy: An In-Depth Look at High Frequency Trading, September 30, 2009, (hereinafter "Rosenblatt Securities"). Rosenblatt Securities coins the term "electronic market-making" to reference HFT market participants that are making markets electronically.

Rosenblatt Securities also compares the annual revenue for GETCO, likely the world's biggest HFT firm, at \$400 million in 2008 to an estimated \$1.63 billion in gross Nasdaq dealer revenues for the month of June in 1997. Rosenblatt Securities at 28.

Average Cost of Executing Trades



Source: *Elkins/McSherry, Institutional Investor*

Further, despite the severe Financial Crisis of 2008 and the steep decline in equity prices, the U.S. equity markets operated remarkably well. Market participants using HFT methods and low latency technology remained in the markets to trade with other market participants and were responsible for providing the equity markets with liquidity during times of market stress, including the failure of Lehman Brothers, the bailouts of AIG, Fannie and Freddie, the failure of Washington Mutual, and the rescue of Merrill Lynch.³² The equity trading systems handled the volatility and trade volumes without system problems unlike the Market Crash of 1987, where the slower, less developed trading systems used at the time were quickly overwhelmed by trading volume and market makers would not answer the phone because they lacked the capacity to execute orders.³³ More significantly, though, the equity markets did not freeze because liquidity in these markets is provided by a broad and diverse group of market participants, who are separately capitalized and less interconnected to the broader financial system than traditional dealers. This proved to be extremely important when the major dealers, who are highly interconnected in markets of a variety of asset classes, experienced firm-wide liquidity issues, which impaired their ability to provide liquidity to these markets. Accordingly, the proliferation of trading venues and market participants prevented the equity markets from suffering from a lack of dealer participation that impaired, or effectively froze, the markets of other asset classes, such as the credit, fixed income and over-the-counter derivatives markets.

³² Rosenblatt Securities at 29.

³³ See Angel et al.; Rosenblatt Securities at 29.

The Release requests comment on metrics for measuring the current market structure, the impact on various market participants and other aspects of the market structure in evaluating whether the regulations in place are in the public interest and the need for additional rulemaking.³⁴ Below, we respond to specific issues raised in the Release, and as discussed further, we believe the specific metric the Commission should focus on measuring the quality of markets is liquidity.

A. Long-Term Investors versus Short-Term Traders

The Release repeatedly raises the issue of the interest of long-term investors and raises questions with respect to differentiating between the interests of long-term investors and those of short-term professional traders in assessing market structure issues.³⁵ In the words of the Commission, we believe that “it is important to avoid the false dichotomies between the interests of short-term traders and long-term investors, and that many difficult line-drawing issues potentially can arise in precisely defining the differences between the two terms.”³⁶ Moreover, the concept of promoting long-term investor interests over other market participants is not supported by the Exchange Act.³⁷ Congress stated that the basic goals of the Exchange Act are “to provide fair and honest mechanisms for the pricing of securities, to assure that dealing in securities is fair and without undue preferences or advantages among investors, to ensure that securities can be purchased and sold at economically efficient transaction costs, and to provide . . . markets that are open and orderly.”³⁸ MFA represents both long-term investors and short-term traders. In our view and from our experience, the relationship between long-term investors and short-term traders is mutually beneficial for the reasons explained below.

1. Long-Term Investors Benefit from Short-Term Traders

We do not believe that the long-term investor and short-term trader distinction or construct is useful in evaluating the effectiveness of the current market structure. The role of the markets is to connect buyers and sellers. In mandating a national market system, Congress stated that “[i]nvestors must be assured that they are participants in a system which maximizes the opportunities for the most willing seller to meet the most willing buyer” and that the NMS should “embrace the principles of competition in which all buying and selling interests are able to participate and be represented”.³⁹ The work of the Commission in recent years has made the markets more efficient by reducing market fragmentation that would otherwise prevent sellers in one location from connecting with buyers in another location. However, market liquidity is not only spread across location, but also across time—a long-term investor may need to raise capital

³⁴ Release at 3604.

³⁵ Release at 3603.

³⁶ Reg NMS Adopting Release at 37500.

³⁷ Neither the Exchange Act nor the legislative history provides the Commission with a basis for discriminating among investors based on their investment time horizon. The SEC’s role is the protection of investors. See H.R. Rep. No. 73-1383, 73rd Cong., 2d Sess. (1934). Moreover, with respect to capital formation, there is no reason to believe that long-term investors are better at facilitating capital formation than short-term investors. Both are essential to the process.

³⁸ S. Rep. No. 94-75, 94th Cong., 1st Sess. (1975).

³⁹ H.R. Rep. No. 94-123, 94th Cong., 1st Sess. 50 (1975).

by selling a position today, but there may not be buyers with long-term holding interest until tomorrow.

Short-term traders act to alleviate the short-term lack of liquidity by stepping in to buy from the long-term investor today, with the goal of selling to a different long-term investor or short-term trader tomorrow. While the short-term trader hopes to make a profit for providing liquidity and taking the risk of the position (the risk that the price may change or that another investor may not come tomorrow), ultimately the long-term investor receives a better price for the trades he needs to execute today. Without the liquidity from short-term traders, the long-term seller would experience additional uncertainty with respect to price impact to find buyers today (if he can find buyers at all).

Ultimately, there is a continuum of investors with different investment time horizons participating in markets, each with a role in making the market efficient. Indeed, some long-term investors invest or engage in short-term strategies, similar to those of short-term traders. Regardless of investment time horizon, all investors by the mere act of trading provide additional liquidity, improve price discovery, and allow for more efficient capital allocation. In today's efficient U.S. markets, short-term traders play a crucial role in this process. Long-term investors need and benefit from the trading activity of other investors and traders. Initiatives to restrict short-term trading are likely to harm long-term investors through higher costs, decreased market efficiency, and lower market confidence. Thus, we believe the Commission should focus less on nomenclature and more on the impact of particular kinds of trading activity on liquidity and capital formation.

2. Distinguishing Between Long-Term Investors and Short-Term Traders

While we disagree with the utility of, or basis for, focusing on long-term investors over other market participants, we make the following two observations. First, many long-term investors utilize advanced execution algorithms offered by brokers or execution technology firms which draw on the same kinds of tactics as proprietary trading desks. So, orders sent into the markets to establish or liquidate a large position may look and "act" similar to short-term trading even if the ultimate goal for the investor is to adjust or to enter or exit a large long-term position. For example, a passive, indexed mutual fund that offers daily liquidity to its retail clients will likely need to adjust its holdings of securities each day as investors enter or exit the fund or relative prices of securities in the index change. To serve their investors, such fund needs to avail itself of the most effective order execution strategies. Accordingly, any restrictions on short-term trading may also negatively impact a long-term investor's ability to enter and exit a position with minimal market impact.

Second, the ultimate beneficiaries of short-term trading are long-term investors in the sense that many long-term investors, such as pension funds and other institutional investors invest or engage in short-term investment/trading strategies. Often, the beneficiaries of an entity that enters and exits positions within seconds, minutes, days or months at the level of a trading desk have in fact committed their capital to the entity for the long-term. Regulations that distort investment incentives could negatively impact capital formation and the broader benefits associated with capital formation to the detriment of all investors.

B. Liquidity and Market Quality

The role of the U.S. equity markets is to promote capital formation. In this respect, a more effective assessment of market structure would be for the Commission to focus on market liquidity, which has a direct correlation to capital formation. As the Commission recognizes “[i]nvestors are more willing to own a stock if it can be readily traded in the secondary market with low transaction costs. The greater the willingness of investors to own a stock, the higher its price will be, thereby reducing the issuer’s cost of capital.”⁴⁰

1. The Role of Liquidity

Liquidity promotes capital formation, irrespective of the investment time horizons of the investor/trader. Liquidity plays a critical role in maintaining the confidence of investors globally and promoting the efficient functioning and high-level of innovation in our capital markets. In the equity markets, liquidity is provided by many sources; however it relies heavily on transactions initiated by investors with shorter-term investment horizons and short-term traders. In essence, transactions are completely fungible and indifferent to the buyers’/sellers’ holding periods. To the extent that liquidity reduces the costs of investing and provides investors with an increased likelihood of finding a ready buyer or seller, then capital market formation is enhanced by measures that improve market liquidity.

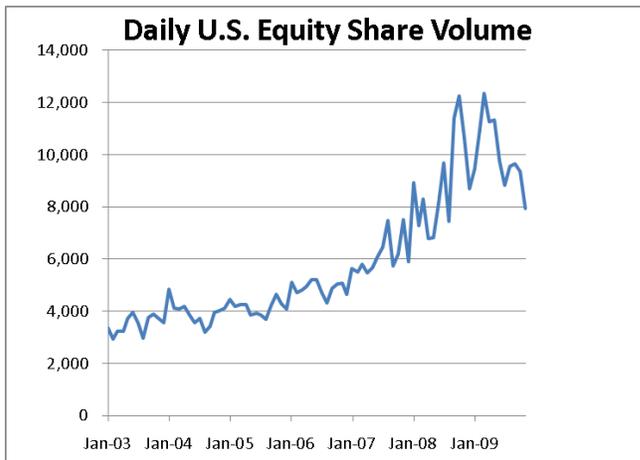
2. Market Structure and Liquidity

The U.S. equity market structure pre-Reg NMS created significant market inefficiencies through the restriction of price data. For example, liquidity in IBM was provided primarily by the IBM specialist on the floor of the New York Stock Exchange. The specialist, being in a privileged position as a result of market rules, including protection by the ITS trade-through rule, did not have incentives to share timely price data to the investing public.⁴¹ Rather, the specialist was able to take advantage of the market structure inefficiency and profit significantly at the expense of investors. Such market structure created a disincentive for specialists to provide timely price data to the public, frustrated price discovery, limited liquidity, led to price inefficiencies and stifled technological innovation.

The Commission’s regulatory reforms, discussed above, promoted technological developments, competition and innovation in the equity markets to the great benefit of investors. Reg NMS eliminated existing competitive barriers and encouraged greater participation and competition in the markets among market participants. As a result, the average daily trading volume has more than doubled since Reg NMS was implemented. The enhanced liquidity has led to narrower spreads, lower transaction costs and a lower cost of capital.

⁴⁰ Reg NMS Adopting Release, at note 15.

⁴¹ Specialists benefited from this advantage, even with the existence of the consolidated tape and last sale reporting. *See e.g.*, Securities Exchange Act Release No. 58845 (SR-NYSE-2008-46).



Source: Barclays Capital Equity Research⁴²

3. Comparison with Other Markets

To illustrate the impact of liquidity on transaction costs in the equity markets, we believe it's helpful to compare the equity markets to other markets, even one of the most liquid markets in the world, the market in U.S. Treasury bonds. In an example provided in "Equity Trading in the 21st Century" by Angel, Harris & Spatt, the authors show the difference in spread between two similar products—a U.S. Treasury Bond and a Treasury ETF. The authors found an online retail quote from a large brokerage firm for the November 2039 4.375% long bond, which was 97.30 bid and 98.75 offered, with a spread of 145 basis points (1.45%) of the bond's par value.⁴³ Whereas, the authors found that the bid-ask spread on a Treasury ETF such as iShares Barclays 20+ Year Treasury Bond (TLT) was typically one or two basis points (1-2¢) on a \$92 stock.⁴⁴ The high-level of competition and liquidity in the equity markets have directly benefited retail investors through tighter bid-ask spreads and lower transaction costs as evidenced in the Treasury ETF example. We note, however, that spreads for institutional investors in fixed income are generally better than for retail investors (for Treasury bonds it is about 3 basis points). Unfortunately, retail investors in other markets, such as fixed income, do not benefit from the same level of liquidity as the U.S. equity retail investors.

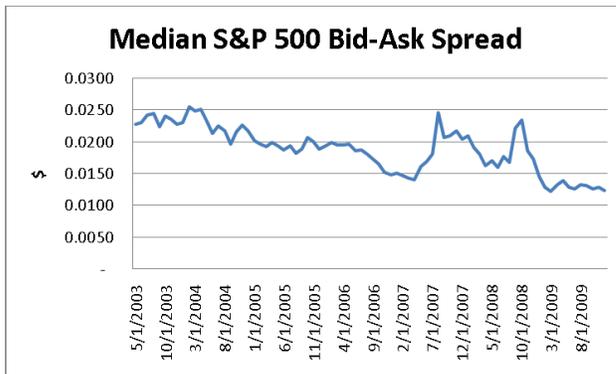
4. Comparing Liquidity in Large Cap and Small Cap Stocks

The benefits of liquidity are most notable in large cap stocks, where automated/electronic/HFT strategies are most prevalent and trading volumes have increased the most. Small cap stocks, in comparison, have experienced less improvement in market quality metrics. The difference in market quality between large cap and small cap stocks is also a helpful metric in showing the role liquidity plays in spreads, costs and market efficiency.

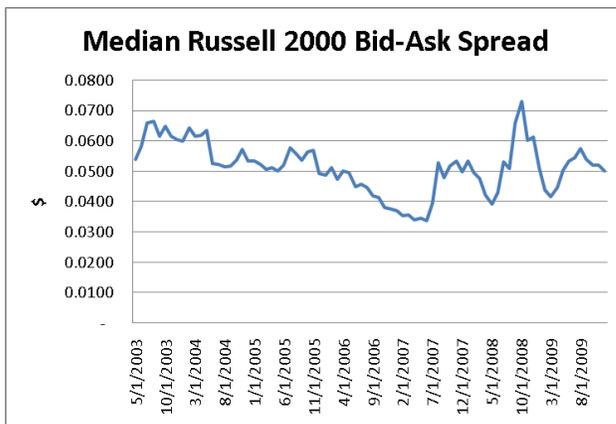
⁴² As cited by Angel et al. at 7.

⁴³ Angel et al. at 41.

⁴⁴ *Id.*



Source: Knight Capital Group⁴⁵



Source: Knight Capital Group⁴⁶

With respect to small cap stocks, the Release requests comment on how the market structure performs for smaller companies and whether it supports the capital-raising function for them.⁴⁷ In our view, the two most significant differences between large companies and small companies are liquidity and research coverage. Large cap companies typically benefit from greater natural liquidity (greater quantities of outstanding shares), increased research coverage that further begets liquidity, and securities lending programs that allow short-selling (which promotes liquidity). Large cap companies also tend to benefit from having many more distinct shareholders than do small cap companies. These holders, including short-term investors and short-term traders, supply liquidity in the security. Small cap companies, on the other hand, have fewer outstanding shares or less natural liquidity, attract less research coverage, are not included in securities lending programs, and tend to have more passive investors. As a consequence, small cap companies have less liquidity and are less attractive to large investors who want to be able to enter and exit a large position without undue market impact.

Capital formation for smaller companies may be enhanced through greater market liquidity—investors would be more willing to own a small-cap security that has a reasonably

⁴⁵ As cited by Angel et al. at 11.

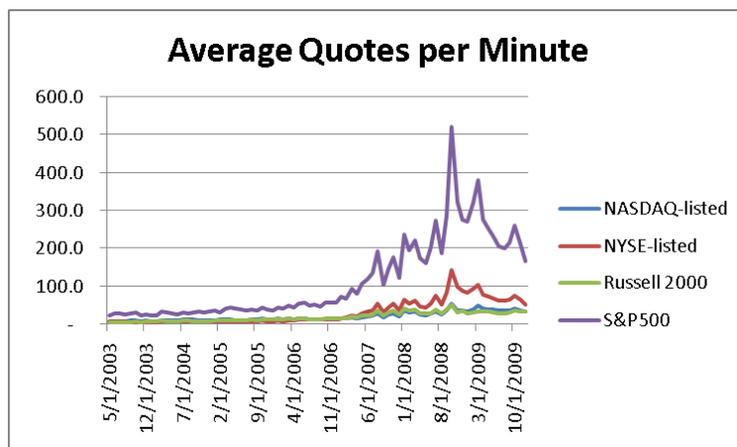
⁴⁶ As cited by Angel et al. at 12.

⁴⁷ Release at 3604.

deep and liquid market. To enhance market liquidity and thereby, the capital-raising function for smaller companies, we encourage the Commission to consider ways to facilitate liquidity providers to these markets regardless of their investment time horizon and to create incentives to encourage greater research coverage or stock-lending programs for smaller companies.

C. Quote Flickering and Order Cancellations

As illustrated in the above graphs on daily trade volume and market depth (an indicator of liquidity), liquidity has steadily increased post-Reg NMS. In fact, one phenomenon of greater liquidity has been quote flickering—an indication of how quickly and efficiently market prices reflect new information. This is also consistent with the trend of higher trading volumes and smaller trade sizes.⁴⁸



Source: Knight Capital Group⁴⁹

The Release asks about the brief duration of many orders, characterized as “phantom liquidity”, and whether it detracts from the quality of liquidity in the current market structure.⁵⁰ “Phantom liquidity” is an inaccurate characterization of orders of brief duration as it implies that these orders were never marketable and that such orders are somehow knowingly cancelled immediately before they are about to be executed. Order flow may be more accurately viewed as continuous liquidity that constantly adjusts for current market conditions or an indication by market participants of their “willingness to trade”. It is the equivalent of the quoting activity by traditional market makers; market participants or intermediaries using HFT execution methods in providing market liquidity constantly re-adjust their orders/quotes in response to market movements.

Many research firms have concluded, and from our experience we agree, that high frequency traders are liquidity providers.⁵¹ To the extent the Commission is concerned that these market participants are liquidity takers rather than providers, we believe the Commission’s Office

⁴⁸ *Id.* at 20. See also chart *supra* Section III showing upward trend of median displayed depth at NBBO.

⁴⁹ *Id.* at 21.

⁵⁰ Release at 3608.

⁵¹ See *e.g.*, Rosenblatt Securities Inc., Tabb Group, and Woodbine Associates Inc.

of Economic Analysis should conduct an empirical study to determine if high frequency traders—or more specifically certain HFT strategies—are in fact liquidity providers. This could be performed by surveying trading platforms for whether such traders take liquidity or provide liquidity.

For investors to receive best execution, liquidity providers need to provide competitive, tradable quotes, and in today's high volume, decimalized market—with distributed market centers—this requires frequent quote revisions, which appear as high cancellation rates. These market participant orders that are submitted and often subsequently cancelled are limit orders—the very type of orders the Commission intended to encourage through Reg NMS's Order Protection Rule.⁵² Indeed, the Commission stated that “strengthened protection of displayed limit orders would help reward market participants for displaying their trading interest and thereby promote fairer and more vigorous competition among orders seeking to supply liquidity.”⁵³ The simple example below shows how a general movement up or down in market levels creates order cancellations and new orders.

Quote for an S&P 500 Security

	Bid	-	Ask
Market	25.00		25.01
<i>Order</i>	25.00		25.01
Market moves by 1/10 of 1% (2.5¢)			
Market	25.02		25.03
<i>Cancel</i>	25.00		25.01
<i>Replace</i>	25.02		25.03

Market makers have always cancelled and refreshed their quotes in response to market movements. With today's more democratic access to markets, liquidity providers working on very thin margins and empowered by low latency technology can respond quickly to changing circumstances. No longer at the mercy of specialists or an oligopoly of human market makers, market participants, including a large segment of investors, can now receive immediate cancellations and just as quickly enter new orders. In particular, this is an essential requirement for market participants engaged in electronic market making strategies to be able to offer tight bid-ask spreads and provide liquidity at low margins.

If the Commission were to limit cancellations in any way, market participants would be more reluctant to post limit orders, which would likely result in a widening of spreads and a decrease in liquidity. Also, such policy could significantly harm the execution quality that investors receive, as many rely on the same technology and their own ability to cancel stale orders in order to minimize their transaction costs. While many orders may be short in duration, from our experience, these orders contribute to more liquid and efficient markets.

⁵² Reg NMS Adopting Release at 37501.

⁵³ *Id.*

D. Trading Obligations

The Release requests comments on whether proprietary firms that have replaced the role of specialists and market makers should have an affirmative or negative obligation.⁵⁴ We do not see a need to place an affirmative or negative obligation on proprietary traders and are concerned that doing so would raise costs for investors without providing any additional benefit. Moreover, Section 11A of the Exchange Act provides that the Commission should provide an opportunity, consistent with efficiency and best execution, for investors' orders to be executed without the participation of a dealer.

Competition in the U.S. equity markets is robust and there is plenty of natural buying and selling interest. Indeed, the proof of the soundness of our capital market structure was borne out during the Financial Crisis of 2008. (*See* introduction of Section III for a more extensive discussion on market participants that use HFT methods and low latency technology and the Financial Crisis of 2008.) HFT market participants that engage in certain arbitrage or market-making strategies are naturally incentivized to take market risk and provide liquidity during times of market stress as trading can be most profitable when markets are volatile, spreads widen and prices change rapidly. The activity of such market participants provides a stabilizing effect, helps maintain orderly markets and benefits other market participants by providing market liquidity.

Imposing affirmative or negative obligations on market participants would likely have the effect of raising barriers to entry, cause market consolidation, and induce some firms to exit the market, all of which would decrease competition and raise costs—to the detriment of investors. We believe the better approach would be to allow competition to flourish, which will lead to tighter spreads, lower transaction costs and more efficient markets for investors. Further, it would be unfair for the Commission to impose affirmative and negative obligations on today's liquidity providers as they are not receiving special trading privileges, such as registered specialists in the past and market makers who in return are required to maintain continuous two-sided displayed quotes.⁵⁵

To the extent the Commission seeks greater information on large-volume market participants we believe the Large Trader reporting proposal may be able to accomplish this objective.⁵⁶ Otherwise, we believe that the securities laws and regulations fully address fraudulent and manipulative activity and that current trading activity of market participants is well regulated and surveilled by the Commission, the exchanges and broker-dealers.

Finally, we note that the only time market participants reduced equity trading during the Financial Crisis of 2008 was in response to the Commission's emergency ban on short selling

⁵⁴ Release at 3607.

⁵⁵ *See e.g.*, 17 CFR 240.11b-1; Securities Exchange Act Release No. 58845 (File No. SR-NYSE-2008-46); Securities Exchange Act Release No. 61724 (File No. SR-NYSE-2010-25); *and* 17 CFR 204.203. The NYSE phased out its specialist system to adopt a "Designated Market Maker" structure, without a negative obligation, as it recognized that the increase in electronic executions and the use of smart routing engines by market participants reduced the advantages once enjoyed by specialists.

⁵⁶ Securities Exchange Act Release No. 61908; 75 *FR* 21456 (Apr. 23, 2010).

financial securities.⁵⁷ Subsequent studies show that the SEC emergency ban on short selling financial securities severely degraded the market quality of the subject securities as it:

- Significantly decreased trading volume and market liquidity;
- Increased bid-ask spreads from a “normal” average of 17 basis points in 2008 to 60 basis points by October 8, 2008;
- Increased volatility;
- Decreased market efficiency.⁵⁸

The general conclusion has been that the SEC emergency ban on short selling financial securities was more harmful in restricting beneficial short-selling than beneficial in restricting alleged abusive short selling.⁵⁹ We highlight this as it serves as a cautionary tale of the potential for negative unintended consequences that are so prevalent when market structure rules are changed. We urge the Commission to carefully consider this significant potential before undertaking any rulemaking.

E. Fairness Issues and Access to Technology

The Release asks about the fairness of the market structure.⁶⁰ The U.S. equity market structure is fair in that it treats similarly situated market participants in a consistent manner and provides all market participants with equal opportunity to compete and access markets. In fact, in our opinion the current market structure is fairer than it has ever been as it no longer preferences particular market intermediaries over other market participants in terms of providing and accessing liquidity (*e.g.*, specialists in specific stocks). Low latency tools and techniques are available to all market participants. We believe additional disclosures (referenced in our recommendations section) will make the evaluation, selection and utilization of these market innovations much simpler for all investors.

1. Congressional Mandate

Congress directed the Commission to focus on efficient capital formation, fair access to markets and timely dissemination of market information.⁶¹ In this respect, the Commission should assure that its regulations do not provide certain participants with competitive advantages over others. As long as regulations treat similarly situated participants the same, the success of

⁵⁷ SEC Order Halting Short Selling in Financial Stocks, SEC Release No. 34-58592 (Sept. 18, 2008), 73 FR 55169 (Sept. 24, 2008). The Commission amended this Order in SEC Release No. 34-58611 (Sept. 21, 2008), 73 FR 55556 (Sept. 25, 2008).

⁵⁸ See Shorting Financial Stocks Should Resume; Shackling Short Sellers: The 2008 Shorting Ban, Boehmer, Jones and Zhang, November 18, 2008; The Undesirable Effects of Banning Short Sales, Abraham Lioui, EDHEC Business School, Risk and Asset Management Research Centre, April 2009; The Blame Game: What Caused Spreads to Widen, AES Analysis, Credit Suisse, Nov. 12, 2008; The Effect of Short-selling Restrictions on Liquidity: Evidence from the London Stock Exchange, Matthew Clifton and Mark Snape, Capital Markets Cooperative Research Centre, Dec. 12, 2008; and Examining the Wake of the Short Sale Restriction, AES, Credit Suisse, October 13, 2008.

⁵⁹ See also Angel et al. at 40.

⁶⁰ Release at 3605.

⁶¹ See *supra* note 5.

individual participants should become a matter of competition. It would be anticompetitive, impractical and against the intention of Congress in establishing a national market system for the Commission to attempt to prevent competitive advantages gained from a market participant's investment in technology and human resources. Congress stated the objective of creating a national market system was "to enhance competition and to allow economic forces, interacting within a fair regulatory field, to arrive at appropriate variations of practices and services."⁶² Moreover, it has been through their brokers' investment in technology and competition that retail investors have been able to benefit from greater market access and (online) trade executions for as little as \$7 a trade (as compared to around \$45 per 100 shares ten years ago)⁶³ or the fixed commission rates that existed prior to May 1, 1975.

Similarly, we believe proposals such as a requirement establishing a minimum duration of orders would be anticompetitive and in conflict with the intention of Congress in establishing a national market system. We believe such proposal would limit and stifle competition similar to the ITS trade-through rule by establishing a ceiling on execution speed to benefit certain market participants. Further, such a proposal would likely harm institutional investors trying to manage large order information by making them more vulnerable to information leakage and the actions of other market participants.

2. The Availability of Technology to All

The Commission also asks whether the current market structure has become so complex that only the largest institutions can afford to deploy their own highly sophisticated trading tools.⁶⁴ This has not been our experience, either for retail investors or professional market participants. Much of the success of the current equity market structure and its resiliency in the face of the Financial Crisis of 2008 are due to the widespread ability of small firms, including proprietary firms and private investment firms, to access markets on a competitive basis. Many notable electronic market makers and users of low latency trading technology are small and successful firms that did not exist ten years ago. In fact, regulatory and technical changes of the past 15 years have largely eliminated the advantages formerly held by the large institutions. Regulation should encourage the participation of market participants of all sizes and strategies to provide liquidity to the markets and to reduce the concentration of, or reliance on, only a few firms to provide liquidity.

All investors have benefited greatly from the advancements in technology in the financial markets, including retail investors. Retail investors are able to access or benefit from sophisticated trading tools in a few ways. First, through technological developments, retail broker-dealers, such as Schwab, E-Trade, Fidelity and TD Ameritrade, are able to offer retail investors advanced trading tools, real-time market data, lower trading costs and greater market access than ever before. Second, retail investors may trade through an intermediary that deploys sophisticated trading tools. Third, retail investors may invest in mutual funds or pension funds that will deploy sophisticated technology to execute trading strategies. Even investors generally considered "passive" or "long-term", such as mutual funds, rely on sophisticated trading tools, such as algorithms, to actively buy and sell securities on a daily basis at the best price in order to

⁶² *Id.*

⁶³ Angel et al. at 19.

⁶⁴ Release at 3605.

offer continuous liquidity to its investors. Accordingly, retail investors are able to access technology through these structures.

With respect to institutional investors, many choose not to invest and build proprietary trading tools from a cost-benefit perspective, but to hire service providers (*e.g.*, executing brokers or third-party vendors) with the best technology, and resources to trade at high speed and with the highest degrees of sophistication. Many investors, including MFA members, access the markets through a broker-dealer via direct market access or sponsored access and use algorithms supplied by buy-side brokers. From our experience, sophisticated trading tools are available to all investors. Nevertheless, investors should be aware and receive disclosure if a connectivity provider provides its proprietary desks different, more sophisticated or lower latency trading tools or any form of customer information. In these respects, we believe it would be helpful to investors if broker-dealers and connectivity vendors provide greater disclosure on connectivity offerings and the utilization of customer information.

Currently, it is very challenging for investors to compare low latency technology across firms. We believe investors would benefit if counterparts and vendors use an industry-wide benchmarking approach to measure connectivity services and low-latency technology. In addition, firms offering execution connectivity to customers should disclose if the firm is utilizing the same connectivity platform or if more advanced execution technology for proprietary activity exists, and whether there are any systematic or programmed preferences between the order entry and execution process for client and proprietary orders.

Further, to the extent that a broker-dealer or vendor providing connectivity uses, packages, redistributes, or sells information based on the flow of a customer's investment activity—such as information on market color, trends, volumes, sector change or other market commentary or metrics—we believe the firm should provide written disclosure to current and prospective connectivity customers. Customers should be aware of how and under what terms their information is being used. Disclosures with respect to execution connectivity and customer order flow information, like Rules 605 and 606, would assist investors in assessing execution quality and possible conflicts of interest.⁶⁵

3. Co-Location

Finally, the fact that certain investors and traders may be willing to incur greater costs to develop more sophisticated trading tools does not make their possession of those tools inherently unfair. The use of co-location or advanced execution algorithms does not provide similar time-and-place advantages, in terms of access to information and executions, as a seat on the floor of a physical exchange offered previously. Co-location demands are the natural and positive result of competition among electronic market-makers attempting to be first to provide liquidity to investors. This competition lowers investor costs and improves the availability of liquidity. It is not a mechanism to disadvantage investors; it is a mechanism to compete to provide a service to investors.

Co-location allows an investor or trader to react more rapidly to news and market conditions than another non-co-located investor or trader. However, we note that the co-located trader still must have the correct market analysis to benefit financially from the advantage co-

⁶⁵ Securities Exchange Act Release No. 43590; 65 *FR* 75414 (Dec. 1, 2000).

location provides, and that the HFT-space is highly competitive, which means that profit and arbitrage opportunities are difficult and expensive to discover. Co-location is particularly critical to market participants whose strategies include reacting to fast, short-term price swings. Co-location is a link in the low latency technology chain, not a latency solution. Many investors with longer-term investment horizons, however, also value and rely on the ability to co-locate. As long as co-location is available to investors, traders and larger brokers on an equal basis, the secondary market for such services to smaller customers from their brokers should be competitive and thus, fairly priced. Accordingly, we believe market centers should disclose if they or third parties offer co-location services on a priority basis other than first available.

F. Directional Strategies

MFA shares the Commission's objectives to eradicate illegal and improper investment activities from our markets. In the Release, the Commission discusses two potential trading strategies, which it believes should be evaluated for their appropriateness: order anticipation and momentum ignition. We provide the following views:

1. Order Anticipation

We strongly condemn trading on misappropriated information and applaud the Commission for highlighting the distinction between "frontrunning"—trading on misappropriated information—and what the Commission describes as "order anticipation", which involves trading on publicly accessible information. We fully support the Commission's recent Division of Enforcement reform efforts to better combat fraud, manipulation and misconduct, such as frontrunning. Illegal market behavior reduces investor confidence in the markets and threatens liquidity to the detriment of all.

The Commission requests comment on whether order anticipation strategies harm the market.⁶⁶ We submit that order anticipation strategies based on publicly accessible information are an inherent and healthy part of the fabric of our markets and should be encouraged and not constrained. All investors attempt to buy and sell at the most favorable prices. In doing so, investors try to execute their orders without revealing their trading, while trying to determine the current and future trading interest of other participants. As a result, most investors directly or indirectly rely on some form of anticipation strategy for entering and exiting the market. For example, many institutional investors pay higher commissions to brokers to "work" orders into the markets while attempting to minimize impact on the supply/demand curve. This activity occurs at all time horizons and creates market efficiency as long as the trading is based on publicly accessible information. Trading based on low latency technology execution methods is no different. These strategies improve market efficiency for all market participants by revealing changes in trading interest to the public, by quickly moving prices toward equilibrium (more quickly than manual trading) and creating prices that are more reflective of the changes in supply or demand for participants on both sides of market transactions.

The next logical question to be raised with respect to order anticipation would be: whether it's appropriate for a market participant to use tools or techniques to hide an order to avoid influencing supply and demand? Herein lies the conundrum—if anticipation strategies based on publicly available data are not appropriate, then concealing any part of an order also

⁶⁶ Release at 3609.

must not be appropriate since both are trying to impact the change in the supply and demand equation. We believe this activity boils down to the essence of trading as buyers and sellers strategize to obtain the best possible price.

The Release also discusses pinging as a form of order anticipation.⁶⁷ Pinging is an important and legitimate trading tool for market participants (*e.g.*, institutional investors) seeking hidden liquidity and contributes to price transparency and market efficiency. When the ‘pinger’ places an order, say a sell order, the only information he receives is whether or not there was interest in executing at a particular amount and price. If there is interest, then the order would be filled. If it was filled, the ‘pinger’ has learned only that at the time he placed his order there was a limit order waiting to be filled. He does not learn anything about the depth of book, how many other limit orders there may have been, or whether there were also limit sell orders at the same time. Accordingly, it is incorrect to think of a ‘pinging’ strategy as determining what quantity of a particular security is available at a particular price. Pinging only provides a participant with an indication of whether there is some liquidity at a particular venue at a particular price at a particular time. Moreover, the same information is available to any other market participant who sends an order to the same venue.

2. Momentum Ignition

The Release describes ‘momentum ignition’ strategies to imply that there are strategies which exist to probe order books to determine if there are order types that could be easily triggered.⁶⁸ This activity would then potentially create a price move resulting in a domino effect, as more such orders get triggered. Effectively this would make trading in these stocks profitable as triggering events occur. It is unclear if this type of strategy is possible without the disclosure of information regarding the depth of book at any given liquidity center. With the advent of execution algorithms and special order types, we are skeptical that these triggering strategies referred to as ‘momentum ignition’ are feasible and believe that they are more a shot in the dark than a strategy. To the extent that a proprietary firm illegally spreads false rumors in the marketplace in connection with its orders and trades, MFA fully supports legal action against such a firm for engaging in manipulative and deceptive devices under the securities laws.

G. Undisplayed Liquidity

We appreciate the Commission’s review of regulations concerning undisplayed liquidity pools, including its recently proposed Regulation of Non-Public Trading Interest (“Dark Pools Proposal”).⁶⁹ There will always be a balance between the desire of investors or markets to protect proprietary information about an investment strategy and the goal of dissemination of key market information that broad transparency promotes. We remind the Commission that transparency is not a goal in and of itself, however; it is a tool that can enhance price discovery and promote competition and fairness among market participants so long as anonymity is preserved. We believe the dissemination of timely and uniform transaction information is an important pillar to a fair, competitive and efficient national market system.

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ Securities Exchange Act Release No. 60997, 74 FR 61208 (Nov. 23, 2009).

The advent of ATSs has greatly contributed to market innovation and competition. ATSs and undisplaced liquidity pools are important avenues for investors to use in seeking best execution. ATSs compete with traditional exchanges, and this competition has led to improvements in technology and execution costs that benefit equity investors of every size, from individuals to the largest and most sophisticated institutional investors. There has always been and probably always will be undisplaced or dark liquidity in the markets, such as the upstairs market in listed stocks. The significant difference, however, is that Reg ATS establishes a fair, efficient and open system for market participants with respect to dark liquidity and as such, enhances fairness in our national market system.

At the adoption of Reg ATS, ATSs were required to include in the consolidated quotation system any quotes distributed to more than one person in a security in which it had 20% or more of the volume and to adopt fair-access procedures.⁷⁰ Reg NMS lowered these thresholds to 5% or more of the volume of a security.⁷¹ Since the adoption of Reg NMS, ongoing technological advancements have again reshaped the trading landscape, which make it appropriate and timely for the Commission to reexamine the impact of certain Reg ATS provisions. We believe it is important for the Commission to study the effect of post-trade transparency for ATSs in order to strike an appropriate balance between increasing transparency, improving price discovery, and ultimately liquidity, through ATS identifiers and ensuring adequate investor protection.

V. RECOMMENDATIONS AND CONCLUSION

We commend the Commission for fostering a national market system that promotes innovation and competition, and appreciate its continual efforts to review the U.S. equity market structure in a holistic manner for the benefit and protection of investors. In doing so, the Commission should continue to focus on the principles set by Congress to promote efficient capital formation, and fair access to markets and market information. As investors, we think the current market structure is extremely efficient and robust, and has proven to withstand even the most volatile of crises as experienced during the Financial Crisis of 2008. Our markets are the most liquid, efficient and investor-friendly in the world, as well as the most successful in promoting capital formation.

As a general matter, the current market structure works well for investors and we are generally pleased with the market regime and the protection it offers investors. We respectfully urge the Commission in considering any market structure proposals to proceed cautiously as we are concerned that unintended consequences could negatively impact investors by decreasing market liquidity, depth and efficiency while raising transaction costs. We recommend that the Commission's Office of Economic Analysis develop and employ objective criteria to evaluate the effectiveness of the U.S. equity market structure for capital formation, including the impact of post-trade execution timing/location transparency for dark pools.

Given the highly technological nature of today's markets, we believe that investors should benefit from some additional disclosures. In this respect, we recommend that the Commission:

⁷⁰ Reg ATS Adopting Release.

⁷¹ Reg NMS Adopting Release, at 207.

- Require broker-dealers and connectivity vendors to establish timing standards in order execution latency and to disclose such standards to all current and prospective clients in order to ensure that clients understand the level of order execution latency they are receiving, particularly how it compares to the connectivity provided to the broker-dealer's own proprietary or market making business lines.
- Require broker-dealers and connectivity vendors to provide written disclosure to clients if they will use (or will provide to others who, in turn, will use) information based on the flow of a customer's investment activity in connection with a firm's proprietary or market making businesses.
- Require market centers to provide written disclosure when they or third-parties provide co-location services on a priority basis other than first available.

We strongly believe these recommendations will further strengthen the U.S. equity market structure, improve investor protection and enhance the integrity of our capital markets. MFA appreciates the opportunity to provide comments on the Release and would be pleased to meet with the Commission or its staff to further discuss our comments. If the staff has questions or comments, please do not hesitate to call Jennifer Han or the undersigned at (202) 367-1140.

Respectfully submitted,

/s/ Stuart J. Kaswell

Stuart J. Kaswell
Executive Vice President and
Managing Director, General Counsel

CC: The Hon. Mary Schapiro, Chairman
The Hon. Kathleen L. Casey, Commissioner
The Hon. Elisse B. Walter, Commissioner
The Hon. Luis A. Aguilar, Commissioner
The Hon. Troy A. Paredes, Commissioner
Robert W. Cook, Director
Division of Trading and Markets
James Brigagliano, Deputy Director
Division of Trading and Markets
David Shillman, Associate Director
Division of Trading and Markets