The Asset Management Industry
SERVING INDIVIDUAL INVESTORS
INVESTMENT COMPANY INSTITUTE

MEMO# 24096

January 25, 2010

SEC Issues Concept Release on Equity Market Structure

[24096]

January 25, 2010

TO: EQUITY MARKETS ADVISORY COMMITTEE No. 1-10
SEC RULES MEMBERS No. 11-10
CLOSED-END INVESTMENT COMPANY MEMBERS No. 7-10
ETF (EXCHANGE-TRADED FUNDS) COMMITTEE No. 1-10
ETF ADVISORY COMMITTEE No. 3-10
SMALL FUNDS MEMBERS No. 7-10
RISK MANAGEMENT COMMITTEE No. 2-10 RE: SEC ISSUES CONCEPT RELEASE ON EQUITY MARKET STRUCTURE

The Securities and Exchange Commission has issued a concept release requesting comment on several aspects of the current U.S. equity market structure. [1] Specifically, the Release focuses on three issues – the performance of the current equity market structure, high frequency trading, and undisplayed, or "dark," liquidity. The Release emphasizes, however, that the SEC is interested in receiving comments on all aspects of the equity market structure that market participants believe are important. [2] Comments on the Release are due to the SEC no later than April 21, 2010. Summarized below are the most significant aspects of the Release impacting funds.

I. Market Structure Performance

The Release requests comment on a number of issues relating to the performance of the current equity market structure, particularly for long-term investors. The Release states

that assessing overall market structure performance should help provide context for particular concerns, as well as the nature of any regulatory response that may be appropriate to address concerns.

A. Long-Term Investors

The Release requests comment on several fundamental issues regarding long-term investors. For example, comment is requested on the practicality of distinguishing the interests of long-term investors from those of short-term professional traders when assessing market structure issues. In addition, the Release requests comment on the circumstances when an investor should be considered a "long-term investor," if a time component is needed to define a long-term investor, and how the SEC should determine the length of expected ownership that renders an investor "long-term."

The Release also recognizes that long-term investors include individuals that invest directly in equities and institutions that invest on behalf of many individuals. The Release asks a series of questions on how all types of individual investors and all sizes of institutional investors are faring in the current market structure.

- To the extent that improved market liquidity and depth promote the interests of long-term investors by leading to reduced transaction costs, what steps should the SEC consider taking to promote market liquidity and depth?
- Has the current market structure become so dispersed and complex that only the largest institutions can afford to deploy their own highly sophisticated trading tools? If so, are smaller institutions able to trade effectively?
- Some broker-dealers offer sophisticated trading tools, such as smart routing and algorithmic trading. How accessible are these trading tools to smaller institutions? To the extent that a competitive advantage flows from these tools, does that competitive advantage help to promote and enable competition, beneficial innovation, and, ultimately, enhanced market quality?
- To what extent is it important for market participants to be allowed to gain competitive advantages, such as by using more sophisticated trading tools?

1. Market Quality Metrics

The Release asks a series of questions on the metrics that may be useful for assessing the performance of the current market structure. The Release discusses the types of metrics that have been used in the past, including measures of spreads and speed of execution, but notes that these metrics may not give a full picture of execution quality. For example, the Release states that short-term price volatility may harm individual investors if they are persistently unable to react to changing prices as fast as high frequency traders and that excessive short-term volatility may indicate that long-term investors, even when they initially pay a narrow spread, are being harmed by short-term price movements that could

be many times the amount of the spread.

The Release notes that most of the SEC's past analyses of market performance have focused on the execution of smaller orders rather than attempting to measure the overall transaction costs of institutional investors to execute large orders. The Release states that measuring the transaction costs of institutional investors that need to trade in large size can be extremely complex as these orders often are broken up into smaller orders and executed in a series of transactions. In turn, metrics that apply to small order executions may miss how well or poorly a large order traded overall. The Release notes that a few trading analytics firms publish periodic analyses of institutional investor transaction costs that allow such costs to be tracked over time to determine whether they are improving or worsening. The Release requests comment on these published analyses generally and whether they accurately reflect the transaction costs experienced by institutional investors. The Release also requests comment on whether there are other studies or analyses of institutional trading costs that the SEC should consider and whether there are other means for assessing the transaction costs of institutional investors in the current market structure.

2. Fairness of Market Structure

The Release asks a series of questions relating to whether the current market structure is fair for long-term investors.

- Is it necessary or economically feasible for long-term investors to expend resources on the very fastest and most highly sophisticated trading systems or otherwise obtain access to these systems. If not, does the fact that professional traders likely always will be able to trade faster than long-term investors render the equity markets unfair for these investors?
- What standards should the SEC apply in assessing the fairness of the equity markets? For example, is it unfair for market participants to obtain a competitive advantage by investing in technology that enable them to trade more effectively and profitably than others?
- Do broker-dealers provide routing tools to their agency customers that are as powerful and effective as the routing tools they may use for their proprietary trading? If not, is this difference unfair to long-term investors?
- Do the current rules requiring execution quality reports continue to provide useful information for investors in assessing the quality of order execution and routing practices? [3] The Release notes that these rules were drafted primarily with the interests of individual investors in mind and that orders with large sizes, for example, are excluded from both rules. Should the rules be updated to address the interests of institutional investors? If so, what metrics would be useful for institutional investors?
- Are there any approaches to improving the transparency of the order routing and order execution practices for institutional investors that the SEC should consider? For example, do institutional investors currently have sufficient information about the smart order routing services and order algorithms offered by their brokers?

II. **High Frequency Trading**

The Release states that one of the most significant market structure developments in recent years is high frequency trading ("HFT"), i.e., when professional traders acting in a proprietary capacity engage in strategies that generate a large number of trades on a daily basis. The Release notes that these traders could be organized in a variety of ways, including as a proprietary trading firm, as the proprietary trading desk of a multi-service broker-dealer, or as a hedge fund. [4] The Release does not try to define HFT but notes several characteristics often attributed to firms engaged in HFT, including: (1) the use of extraordinarily high-speed and sophisticated computer programs for generating, routing, and executing orders; (2) use of "co-location" services and individual data feeds offered by exchanges and others to minimize network and other types of latencies; (3) very short time-frames for establishing and liquidating positions; (4) the submission of numerous orders that are cancelled shortly after submission; and (5) ending the trading day in as close to a flat position as possible.

A. Strategies

The Release requests comment on a number of issues relating to the strategies employed by HFT firms in the current market structure.

- Does implementation of HFT strategies benefit or harm market structure performance and the interests of long-term investors? Is it possible to reliably identify harmful strategies through, for example, such metrics as adding or taking liquidity, or trading with (momentum) or against (contrarian) prevailing price movements?
- Do commenters believe that the overall use of harmful strategies by HFT firms is sufficiently widespread that the SEC should consider a regulatory initiative to address the problem?
    - Should there be a minimum requirement on the duration of orders (such as one second) before they can be cancelled, whether across the board, in particular contexts, or when used by particular types of traders? If so, what would be an appropriate time period?
    - Should the use of "pinging" orders by all or some traders to assess undisplayed liquidity be prohibited or restricted in all or some contexts?

The Release states that the use of certain strategies by some HFT firms has, in many trading centers, largely replaced the role of specialists and market makers with affirmative and negative obligations. The Release requests comment on several aspects of this development.

- Has market quality improved or suffered from this development?
- How important are affirmative and negative obligations to market quality in today's market structure? Are they more important for any particular equity type or during certain periods, such as times of stress?

- Should some or all HFT firms be subject to affirmative or negative trading obligations that are designed to promote market quality and prevent harmful conduct?
- Is there any evidence that HFT firms increase or reduce the amount of liquidity they provide to the market during times of stress?

The Release then discusses four broad types of trading strategies that often are associated with HFTs – passive market marking, arbitrage, structural, and directional.

1. Passive Market Making

The Release explains that passive market making primarily involves the submission of non-marketable resting orders (bids and offers) that provide liquidity to the marketplace at specified prices. The Release notes that while the HFT firm engaging in passive market making may sometimes take liquidity if necessary to liquidate a position rapidly, the primary sources of profits for the firm are from earning the spread and capturing any liquidity rebates offered by trading centers to liquidity-supplying orders.

The Release requests comment on several aspects of the passive market making strategy.

- Do HFT firms provide valuable liquidity to the market for top-tier, large, medium, and small capitalization stocks?
- Has market quality improved or worsened as traditional types of liquidity providers have been replaced by HFT firms?
- Does the very brief duration of many HFT firm orders significantly detract from the quality of liquidity in the current market structure? For example, are their orders accurately characterized as phantom liquidity that disappears when most needed by long-term investors and other market participants?

The Release also notes that one important aspect of passive market making is the liquidity rebates offered by many exchanges and ECNs. The Release requests comment on the volume of high frequency trading geared towards earning liquidity rebates and on the benefits or drawbacks of such trading.

- Are liquidity rebates unfair to long-term investors or do they generally benefit long-term investors by promoting narrower spreads and more immediately accessible liquidity?
- Do liquidity rebates reward proprietary firms for any particular types of trading that do not benefit long-term investors or market quality? For example, are there risk-free trading strategies driven solely by the ability to recoup a rebate that offer little or no utility to the marketplace?

2. Arbitrage

The Release discusses an arbitrage strategy, where a HFT firm seeks to capture pricing inefficiencies between related products or markets. For example, the Release states that the strategy may seek to identify discrepancies between the price of an ETF and the underlying basket of stocks and buy (sell) the ETF and simultaneously sell (buy) the underlying basket to capture the price difference. The Release requests comment on the extent that HFT firms engage in these types of strategies, specifically the volume of trading attributable to arbitrage involving ETFs (both in the ETF itself and in any underlying securities). The Release also requests comment on whether the increasing popularity of ETFs in recent years significantly affected volume and trading patterns in the equity markets and, if so, whether the impact of ETF trading has been positive or negative for long-term investors and overall market quality.

3. Structural

The Release states that some HFT firm strategies may exploit structural vulnerabilities in the market or in certain market participants. For example, by obtaining the fastest delivery of market data, HFT firms theoretically could profit by identifying market participants who are offering executions at stale prices. The Release states that some market participants also offer "guarantee match" features to guarantee the NBBO up to a certain limit and that a HFT firm could enter a small limit order in one part of the market to set up a new NBBO, after which the same firm could trigger guaranteed match trades in the opposite direction. The Release requests comment on whether HFT firms are able to profitably exploit these structural vulnerabilities, the extent firms engage in these types of strategies, and the effect of this trading on market quality.

4. Directional

The Release states that there may be a wide variety of short-term strategies that involve a HFT firm taking a significant, unhedged position based on an anticipation of an intra-day price movement of a particular direction that may contribute to the quality of price discovery in a stock. The SEC requests comment on two types of directional strategies that it says may present serious problems in today's market structure – order anticipation and momentum ignition.

a. Order Anticipation

The Release states that an example of an order anticipation strategy is when a HFT firm seeks to ascertain the existence of one or more large buyers (sellers) in the market and to buy (sell) ahead of the large orders with the goal of capturing a price movement in the direction of the large trading interest. After a profitable price movement, the HFT firm then

may attempt to sell to (buy from) the large buyer (seller) or be the counterparty to the large buyer's (seller's) trading. In addition, the HFT firm may view the trading interest of the large buyer (seller) as a free option to trade against if the price moves contrary to the HFT firm's position.

The Release states that the order anticipation strategy involves any means to ascertain the existence of a large buyer (seller) that does not involve violation of a duty, misappropriation of information, or other misconduct. Examples include the employment of sophisticated pattern recognition software to ascertain from publicly available information the existence of a large buyer (seller), or the sophisticated use of orders to "ping" different market centers in an attempt to locate and trade in front of large buyers and sellers.

The Release notes that any person that violates a duty to a large buyer or seller or misappropriates their order information and then uses the information for its own trading to the detriment of the large buyer and seller has engaged in misconduct that already is prohibited, such as forms of front running. The Release requests comment on any regulatory change that would limit the potential for HFT firms to profit from misconduct with respect to the trading activities of large buyers and sellers.

The Release requests comment on all aspects of order anticipation strategies.

- Does order anticipation significantly detract from market quality and harm institutional investors? For example, does it represent a substantial transfer of wealth from the individuals represented by institutional investors to proprietary firms?
- Has order anticipation become more or less prevalent in recent years? If more prevalent, is the use of HFT firm strategies an important factor in this development? If order anticipation has become more prevalent, are there ways to distinguish order anticipation from other beneficial trading strategies?

b. Momentum Ignition

The Release states that another type of directional strategy that may raise concerns in the current market structure is momentum ignition. With this strategy, the proprietary firm may initiate a series of orders and trades (potentially along with spreading false rumors in the marketplace) in an attempt to ignite a rapid price move either up or down. For example, a trader may intend that the rapid submission and cancellation of many orders, along with the execution of some trades, will "spoof" the algorithms of other traders into action and cause them to buy (sell) more aggressively. By establishing a position early, the HFT firm will attempt to profit by subsequently liquidating the position if successful in igniting a price movement. The Release states that this type of strategy may be most harmful in less actively traded stocks, which may be vulnerable to price movements sparked by a relatively small amount of volume. [5]

The Release requests comment on several issues relating to whether momentum ignition strategies are a significant problem in the current market structure.

- Does the speed of trading and ability to generate a large amount of orders across multiple trading centers render this type of strategy more of a problem today?
- If momentum ignition strategies have caused harm, are there objective indicia that would reliably identify problematic strategies?
- Are there regulatory tools that would effectively reduce or eliminate the use of momentum ignition strategies while at the same time have a minimal impact on other strategies that are beneficial to long-term investors and market quality?

B. High Frequency Trading Tools and Fairness of Co-Location Services

The Release broadly requests comment on "co-location" services and whether it benefits or harms long-term investors and market quality. "Co-location" generally refers to providing space for the servers of market participants, often HFT firms, in the same data center housing the matching engines of an exchange.

- Does co-location provide proprietary firms an unfair advantage because they generally will have greater resources and sophistication to take advantage of co-location services than other market participants, including long-term investors, or does co-location offer benefits to long-term investors?
- Is it fair for some market participants to pay to obtain better access to the markets than is available to those not in a position to pay for or otherwise obtain co-location services?
- Are brokers generally able to obtain and use co-location services on behalf of their customers? If so, are long-term investors harmed by not being able to use co-location directly?
- If co-location services create unfair access to trading, should the SEC prohibit or restrict exchanges, and other trading centers, from offering co-location services?

C. Systemic Risks

The Release requests comment broadly on whether HFT poses significant risks to the integrity of the current equity market structure. For example, the Release asks whether the high speed and enormous message traffic of automated trading systems threaten the integrity of trading center operations. The Release also notes that many HFT firms potentially could engage in similar or connected trading strategies that, if such strategies generated significant losses at the same time, could cause many HFT firms to become financially distressed and lead to large fluctuations in market prices. Similarly, to the extent that HFT firms obtain financing for their trading activity from broker-dealers or other types of financial institutions, the significant losses of many of these firms at the same time could lead to more widespread financial distress.

III. **Undisplayed, or "Dark," Liquidity**

The Release defines undisplayed, or "dark," liquidity as trading interest that is available for execution at a trading center, but is not included in the consolidated quotation data that is widely disseminated to the public. The Release requests comment on all forms of undisplayed liquidity in the current market structure and specifically on the effect of undisplayed liquidity on order execution quality, the effect of undisplayed liquidity on public price discovery, and fair access to sources of undisplayed liquidity.

A. Order Execution Quality

The Release asks several questions relating to the order execution quality provided to long-term investors by undisplayed liquidity. The Release notes that it appears that a significant percentage of the orders of individual investors are executed at OTC market makers, and that a significant percentage of the orders of institutional investors are executed in dark pools.

- Do dark pools and OTC market makers offer substantial advantages in order execution quality to long-term investors? If so, do these advantages justify the diversion of a large percentage of investor order flow away from the displayed markets that play a more prominent role in providing public price discovery?
- If investors were limited in their ability to use undisplayed liquidity, how would trading behavior change, if at all? What types of activity might evolve to replace undisplayed liquidity if its use were constrained?
- Does execution quality vary across different types of dark pools and, if so, which types? If so, does this difference depend on the characteristics of particular securities?
- Many dark pools execute orders with reference to the displayed prices in public markets. Does this reference pricing create opportunities for institutional investors to be treated unfairly by improper behavior? If so, to what extent does gaming occur? Do all types of dark pools employ anti-gaming tools? How effective are such tools?
- Are institutional investors able to trade more efficiently using undisplayed liquidity at dark pools and broker-dealers than they are using the undisplayed liquidity at exchanges and ECNs? What are the advantages and disadvantages of each form of undisplayed liquidity?
- If the use of undisplayed liquidity at dark pools and broker-dealers were curtailed in any way, could institutional investors adjust by using undisplayed liquidity on exchanges and ECNs without incurring higher transaction costs?

B. Public Price Discovery

The Release requests comment on whether the trading volume of undisplayed liquidity has reached a sufficiently significant level that it has detracted from the quality of public price discovery. For example, the Release asks whether the level of undisplayed liquidity has led to increased spreads, reduced depth, or increased short-term volatility in the displayed trading centers and, if so, has the harm to public price discovery led to a general worsening of execution quality for investors in undisplayed markets that execute trades with reference to prices in the displayed markets.

1. Trade-At Rule

The Release requests comment on whether the SEC should consider a "trade-at" rule as a way to address harm to the quality of public price discovery by undisplayed liquidity. A "trade-at" rule would prohibit any trading center from executing a trade at the price of the NBBO unless the trading center was displaying that price at the time it received an incoming contra-side order. Under this type of rule, for example, a trading center that was not displaying the NBBO at the time it received an incoming marketable order could either: (1) execute the order with significant price improvement or (2) route orders to execute against the full displayed size of NBBO quotations and then execute the balance of the order at the NBBO price. The Release requests comment on whether a trade-at rule would help promote pre-trade public price discovery by preventing the diversion of a significant volume of marketable order flow away from the displayed trading centers and the extent increased routing to displayed trading centers would create greater incentives for market participants to display quotations in greater size or with more aggressive prices.

2. Depth-of-Book Protection

The Release notes that SEC rules currently provide "trade-through" protection only to quotations that reflect the best, or "top-of-book," prices of a trading center. The Release requests comment on whether these rules should be expanded to provide trade-through protection to the displayed "depth-of-book" quotations of a trading center. Specifically, the Release asks whether depth-of-book protection would significantly promote the greater display of trading interest and whether depth-of-book protection is feasible under current trading conditions.

C. Fair Access and Regulation of ATSs

The Release states that a significant difference between the undisplayed liquidity offered by exchanges and the undisplayed liquidity offered by dark pools and broker-dealers is the extent of access they allow to such liquidity. The Release requests comment on whether all types of dark pools can comply with the current fair access requirements yet still achieve the objective of enabling institutional investors to trade in large size with minimized price

impact.

Ari Burstein
Senior Counsel - Securities Regulation

endnotes

[1] Securities Exchange Act Release No. 61358 (January 14, 2010), 75 FR 3594 (January 21, 2010) (“Release”). The Release can be found on the SEC’s website at http://www.sec.gov/rules/concept/2010/34-61358.pdf.

[2] The SEC notes that while the Release focuses on the structure of the equity markets, it does not discuss the markets for other types of instruments that are related to equities, such as options and OTC derivatives. Comment is requested, however, on the extent to which the issues identified in the Release are intertwined with other markets, e.g., the extent that market participants may look to alternative instruments if they believe the equity markets are not optimal for their trading objectives and whether the SEC should consider the extent to which instruments substitute for one another in evaluating equity market structure. The Release also requests comment on the impact of globalization on market structure and how global competition for trading activity impacts the U.S. market structure.

[3] Currently, SEC rules require market centers to publish standardized, monthly statistics on their execution quality in NMS stocks and broker-dealers to publish reports on their order routing and payment for order flow practices in NMS securities.

[4] The Release refers to these traders collectively as “proprietary firms.”

[5] The Release notes that any market participant that manipulates the market has engaged in misconduct that already is prohibited and that the SEC is focused on the issue of whether additional regulatory tools are needed to address illegal practices, as well as any other practices associated with momentum ignition strategies. For example, the Release states that while spreading false rumors to cause price moves is illegal, such rumors can be hard to find and it can be difficult to ascertain the identity of those who spread rumors to cause price moves.