EWT
LLC

April 21, 2010

Ms. Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: Release No. 34-61358, File No. S7-02-10, Concept Release on Equity Market Structure

Dear Ms. Murphy:

EWT, LLC ("EWT") appreciates the opportunity to provide the Securities and Exchange Commission (the "Commission") with comments on current equity market structure and the questions posed by the Concept Release on Equity Market Structure (Release No. 34-61358, 75 Fed. Reg. 3594, the "Concept Release").

## I. Overview

EWT strongly supports the Commission's efforts to create, maintain, and grow fair and efficient markets. Prudent rulemaking in the past decade has promoted vigorous fair competition and democratization of access, resulting in an extraordinarily efficient market benefiting all investors. The Commission should continue to take appropriate actions to support these developments. As discussed in greater detail below, we believe that:

- Market quality has improved considerably in recent years, as demonstrated by key data: the total cost to execute a transaction has declined significantly, the depth and availability of liquidity to facilitate a desired transaction have both increased, the timeliness of executions of transactions has dramatically improved, and the transparency of pricing information has made significant progress.

- The improvement in market quality is attributable to the regulations that promote broad and fair access, the resultant vigorous competition, and beneficial improvements in information technology. Much of the improvement in market efficiency has been driven by improved automation and risk management due to the widespread adoption of the tools of high-frequency trading.

- The Commission should continue to support the beneficial evolution of the market through enhancing fair access, transparency, and structural improvements to market efficiency. Specifically, we recommend that the Commission:

    - Lower the threshold for requiring fair access pursuant to Regulation ATS;

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- Regulate exchange co-location services in the same manner as other exchange access fees;
- Encourage plan processors to improve their systems;
- Expand the FINRA Order Audit Trail System ("OATS") to cover all NYSE-listed securities;
- Enhance disclosure to customers of order execution practices and consider requiring an opt-in from customers for internalization and off-exchange execution;
- Require all market centers to support "cancel on disconnect" functionality to mitigate systemic risk;
- Prohibit "pro-rata" market priority models; and
- Consider a graduated scale for minimum pricing increments.

We believe that undertaking these initiatives will promote the continued improvement of market quality for all investors.

## II. Background

EWT is a proprietary, self-clearing broker-dealer registered with the Commission under Section 15 of the Securities Exchange Act of 1934. EWT is a member of the Financial Industry Regulatory Authority, the New York Stock Exchange, and NASDAQ. Together with its affiliates, EWT operates across more than 25 exchanges and market centers around the world. EWT makes markets using direction-neutral algorithms and proprietary trade execution technology. EWT has a significant market share in several asset classes and is an active participant in the public equities markets. EWT does not engage in customer transactions and derives its income from its proprietary market making activities on public markets. As a market maker, EWT provides significant liquidity to the marketplace and investors.

As an active participant in the equities markets, EWT strongly supports the efforts of the Commission to promote transparency, fairness and efficiency in the U.S. markets. EWT has observed the evolution of the equities markets in the past decade and has witnessed the dramatic improvements in market quality fostered by prudent rulemaking and continual technological improvements. We are pleased to offer our observations on the development of the equities markets over the past decade, and urge the Commission to continue its course of prudent rulemaking in our markets.

## III. Improvements to Market Quality

### *A. Market Quality Metrics*

Market quality has improved significantly in recent years, to the benefit of all market participants. While various market participants would be expected to have divergent views on certain aspects of market performance over the past decade, we believe that there is substantial common ground among all participants with regards to what constitutes a well-functioning market. For any market participant – retail investor, market marker, pension fund, or day trader – the same core questions arise with regards to market quality: What is the total cost to execute a transaction? Is there liquidity available to execute a transaction? Can a transaction be executed immediately to capture current market conditions and minimize uncertainty? Is there transparency in pricing information?

#### *i. Cost of Execution*

The total cost to execute a transaction broadly consists of two components: the bid-offer spread and per-transaction fees and commissions. The bid-offer spread is an extremely important metric because of both its impact to total cost and its sensitivity to market structure. The single largest variable cost of a transaction (yet often the least transparent to the investor), the bid-offer spread is a measure of how efficient the market is. EWT has witnessed firsthand the significant reductions in bid-offer spreads of the past decade as the exchanges have improved technology and broadened access.[1] Markets that were operated by a single specialist in 2003 and had spreads upward of $0.30 per share now have a robust community of market makers who maintain markets that are pennies wide, dramatically improving opportunities and lowering costs for investors.

More broadly, spreads in all NYSE-listed issues have narrowed between 7.5% and 46.4% since the adoption of Regulation NMS in 2007, and spreads in NASDAQ-listed issues have narrowed between 6% and 48% during the same period.[2] For investors employing market orders, spreads have narrowed even more dramatically: in 2001 market orders incurred a bid-offer spread of over five cents for NASDAQ-listed securities and over six cents for NYSE-listed

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[1] For example, in 2002 when EWT began making markets in the iShares Russell 2000 Index Exchange Traded Fund ("IWM"), the bid-offer spread on the primary market of the American Stock Exchange was over twenty cents wide, despite IWM trading over two million shares a day. The market had a single, exchange-designated market maker. Within four months of EWT beginning to make a second consistent two-sided market for IWM, the bid-offer spread narrowed to four cents. The narrower spread made the fund more attractive to investors, and the average trading volume increased to more than twelve million shares per day in 2004. Today, because of highly competitive market making, the bid-offer spread for IWM is now usually one to two cents wide throughout the trading day (with over fifty million shares traded each day), resulting in an inexpensive way for investors to invest in small cap companies.

[2] "High Frequency Trading Helps Narrow Spreads", Ray Pellecchia, New York Stock Exchange, *available at* http://exchanges.nyse.com/archives/2009/08/hft.php.

securities, but by 2009 this had plunged to roughly two cents for each category.[3] These significant improvements are directly realized as savings by all investors.

Per-transaction fees have plummeted in the same period as well. Average retail commissions fell by over 60% in the past decade, as technology has dramatically lowered the cost of clearance and settlement and facilitated broad electronic access to the markets.[4] Clearing costs for broker-dealers have declined from five dollars or more per trade ticket just a few years ago, to pennies per trade ticket today. In sum, the total cost to execute a trade has declined dramatically for all market participants, resulting in better market quality overall.[5]

We also note that bid-offer spreads in a competitive environment closely mirror the efficiency of the market structure and underlying technological sophistication, after normalizing for volatility. For example, changes to market structure during the fall of 2008 had an immediate impact on bid-offer spreads.[6] On this basis, the long term trend of lower bid-offer spreads suggests a long-term improvement in market structure over the past decade.

*ii. Liquidity*

Today's markets demonstrate significant depth of liquidity, with over twice the size on the best bid or offer ("BBO") for S&P 500 stocks today as in 2005, and at a narrower bid-offer spread.[7] Depth, breadth, and availability of liquidity are critical components of a robust market. Depth of liquidity not only assures the requisite number of shares on the buy and sell side to support an incoming marketable order, but it also sends an important signal to the market that price discovery is properly functioning. Visible liquidity demonstrates that the BBO is supported by a well-developed price curve reflecting multiple views of value. The single, top-of-book quotation, standing alone, provides no information as to the extent to which market participants are willing to transact except at the current best price.

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3 James Angel, Lawrence Harris and Chester Spatt, "Equity Trading in the 21st Century", *available at* http://www.sec.gov/comments/s7-02-10/s70210-54.pdf ("Angel, Harris Study").

4 Angel, Harris Study at 19.

5 Experienced institutional investors describe the same phenomenon: "...all the data suggests that the markets are performing with far less friction and cost to investors even during the worst trading times in the last 50 years...Trading costs are a third of what they were 10 years ago when Wall Street was doing it the old-fashioned way.", Harold Bradley, Chief Investment Officer, Ewing Marion Kauffman Foundation, Thomson Reuters Global Exchanges and Trading Summit, March 30, 2010, Final Transcript.

6 *See* Credit Suisse Portfolio Strategy, AES Analysis (November 12, 2008). Bid-offer spreads during the emergency short sale restrictions of October 2008 widened more than stocks not subject to the short sale restrictions. The relationship between spreads widening and market structure changes is evident even when factoring out increases in volatility.

7 *See* Angel, Harris Study at 14 and 11.

Breadth of liquidity is a crucial factor as well, as multiple market makers employing diverse models enhance the stability of the market; liquidity that is not dependent upon any single firm or value model is more resistant to disruptions and dislocations caused by market events or isolated firm issues. The financial crisis of 2008 demonstrated in stark terms that our markets should not be reliant upon any single firm. A diverse community of liquidity providers is a vital part of a healthy and robust market.

Stable access to liquidity is critical as well, and dependent upon a dispersed market system where the failure of any single exchange or component – or the inability of a single market maker to handle increased demands for liquidity – does not threaten the smooth functioning of the market as a whole. Our experience was that the market under the specialist models of the prior decade enjoyed none of these benefits: it was not uncommon to see one-sided quotations at a single level for a paltry 1,000 shares or less, and order executions and quote updates frozen for tens of seconds at the specialist's discretion.

On the other hand, we do not share the view, held by some observers, that market quality – specifically, the value or privileges of certain participants – should be measured by the relative proportion of "add" versus "remove" orders. Several exchanges have fee schedules that incentivize participants to post resting orders on their exchange. The exchange pays a rebate (an "add rebate") to the customer that places a resting order on their exchange when that order is executed and charges an access fee (a "remove fee") to the customer who transacts with the resting order. Some people refer to resting orders that receive a rebate as "passive" or "adding orders" while orders that cross the spread and pay an access fee are referred to as "aggressing" or "removing orders." The labels chosen by the exchanges are more a reflection of marketing than economics, however — it would be misleading to believe that only resting orders that collect an "add rebate" are adding liquidity while orders that pay the bid-offer spread are not adding liquidity.[8]

All participants, whether retail, institutional, market makers, long-term or short-term holders of securities, will at times try to collect the bid-offer spread and at other times choose to cross the spread and execute on the NBBO. There are economic benefits to posting resting orders (the order may collect some or all of the bid-offer spread, and may collect an "add rebate") as well as risks (the order may not execute, and the participant may later transact at an inferior price). There are also economic incentives to aggressing on resting orders (price and time certainty) as well as costs (the order may pay some or all of the bid-offer spread and may pay an access fee).

As a registered market maker, EWT has a high proportion of "adding orders" and would likely fare well in market quality metrics based upon "adding orders" or ratios of "adding orders" to "removing orders". However, we do not think that such measurements present either a

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[8] Notably, some market centers (e.g., NASDAQ's primary market) charge "removing orders" but others (e.g., NASDAQ's BX market) pay a rebate for "removing orders." The market-center-specific nature of these constructs suggests that these distinctions are driven largely by business model concerns, not fundamental market structure issues or a judgment on the intrinsic merits of either activity.

valid or actionable view of market quality, nor do we think it would be fair or prudent to award specific privileges to a participant solely to reward placing a high percentage of orders that receive an "add rebate." A customer who crosses the bid-offer spread and aggresses on a resting order also injects valuable liquidity into our financial markets. (In fact several brokers will pay to receive this liquidity before it is routed to an exchange.) Better price discovery, competition, efficiency and liquidity will be present in our securities markets if we support an environment populated by numerous participants employing diverse business models.

*iii. Timeliness of Execution*

Timeliness of execution is another critical indication of market quality. As investors react in real-time to breaking news, events, and market movements, it is vital that they be able to execute their trades immediately. Moreover, immediate execution is a prerequisite for effective oversight of the best execution obligations of brokers – the ability for a customer or regulator to correlate market data against order entry and execution is an extraordinarily effective tool for ensuring that investors receive the best executions possible. Immediate executions also serve an important purpose in mitigating risk. Sound risk management is based upon minimizing uncertainty, and any delays in executions introduce unnecessary uncertainty and risk into the financial system. Just five years ago, order acknowledgement and execution took seconds, with delays exceeding a full minute during larger market movement. Today, the major exchanges provide reliable and timely executions within milliseconds, even during times of market stress.[9]

*iv. Transparency of Pricing*

The public availability of pricing information is yet another crucial metric of market health. The wide availability of pricing information, as well as the myriad means to access such data, ensures that pricing information is disseminated to all market participants in whatever format or means they desire. Real-time market pricing information is available to investors through numerous sources on the Internet, retail brokers provide the option of depth-of-book market data to their customers, and exchanges even offer order-by-order daily market data to the general public for analysis.

By any of these measures individually, and certainly by all the measures taken as a whole, our markets currently enjoy an unprecedented level of quality. However, we recognize that there is always room to improve. Thus, as the Commission evaluates the impact of numerous recent measures to improve market quality and considers additional initiatives, the aforementioned metrics should provide a well-rounded framework for measuring costs and benefits.

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[9] *See* http://www.batstrading.com/resources/features/bats_exchange_Latency.pdf. *See also* http://www.nasdaqtrader.com/Trader.aspx?id=inet. *See also* http://www.nyse.com/pdfs/US%20Equities%20News%20March%202010.pdf.

### *B. Market Structure and Volatility*

Although volatile markets are a concern for investors, volatility is largely a result of macro-economic forces and not a useful metric for measuring the market quality associated with market structure. Volatility changes even while market structure remains constant. The record volatility spikes of 2008 were not a result of market structure changes; rather, they were a result of disruptions in the credit markets and numerous other problems that originated far outside the equity markets. Indeed, as those disruptions have subsided this year, volatility in the equity markets has dropped below its ten year average, even though equity market structure remains largely the same as in 2008. Short-term intraday volatility may have a slightly stronger relationship to market structure – for example, a healthy market will have numerous market makers who absorb liquidity imbalances and thus dampen volatility – but fundamentally, the fluctuations in pricing are due to the impact of new information.

In this regard, we emphasize that standalone measurements of order placements and cancellations generally indicate that market participants are actively adjusting the pricing of their actionable orders to take into account new information,[10] but provide no direct insight into the price and depth (and therefore, the quality) of the market. Active adjustment of prices improves price discovery, reduces the bid-offer spread and lowers costs for investors. For example, if a market maker were only permitted to publish a single quotation per day for a security, the quotation's prices would likely reflect that market maker's view of the best and worst case scenarios over the whole day, and the spread would necessarily be quite wide, perhaps several dollars. If, however, the market maker were allowed to adjust the quotation prices every hour, the spread could be much smaller as the market maker would reasonably conclude that the average movement of the security over any given hour is less than the average movement over a day. Further, if the market maker were allowed to adjust prices every minute, the spread could become more precise still, perhaps narrowing to tens of cents. Depending on the technology employed, each adjustment of price may generate an order cancellation, and thus it is to be expected that the number of order cancellations would increase as the pricing becomes more precise, and additionally as the population of market makers increases and diversifies.

The most dramatic example of this simple relationship is perhaps the recent overhaul of the Tokyo Stock Exchange's trade matching technology in January 2010. Prior to the launch of the new trading platform, the Tokyo Stock Exchange would process trades once every three seconds.The new system enabled the exchange to match trades in as little as two milliseconds.[11] As expected, order placements and cancellations increased with the launch of the more capable platform, but the immediate benefits were considerable, and surpassed predictions. In addition to vastly improved timeliness of executions and market data, bid-offer spreads

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[10] For example, many order cancellations are the result of market participants updating their pricing of cash equities to take into account changes in prices of related securities listed on U.S. futures and options markets and, in some cases, international markets, as well as the dissemination of market or company-specific news.

[11] *See* TSE Equity Market after Launch of arrowhead, Tokyo Stock Exchange, April 2010.

narrowed by over 25%.[12] Furthermore, even as spreads declined, market participants appeared more willing to display liquidity, as the best bid/ask quantity as a percent of daily volume increased significantly.[13] Additionally, market participants saw their market "slippage" (the difference between the price they intended to capture and the price they actually captured) decline by as much as 65%, resulting in more precise executions and cost savings for investors.[14]

Although most order placements and cancellations are either affecting liquidity beyond the BBO or adjusting the quantity on the BBO, some observers have raised concerns about the frequency of price adjustments of the BBO. Adjustments of the BBO are not inherently problematic. If a market maker is only able to narrow the spread for a period of seconds but an investor executes against the improved quotations, the investor has clearly benefited. If the market maker were restricted to placing fewer orders or subject to minimum order lifetime requirements, the likely result would be that the market maker would forgo the orders that narrow the spread, as such orders would incur additional risk. The result would be a wider spread with fewer changes, ultimately increasing costs to investors.

On a related note, we have observed that updates to the BBO occur more frequently for higher priced stocks than lower priced stocks. This is not surprising, since each pricing increment represents a smaller percentage of the price per share for higher priced stocks than it does for lower priced stocks. Said another way, a 1% move in the market, for instance, would represent several increments more for the former than the latter. To the extent that the Commission decides to prioritize price stability over narrower spreads, we would observe that a graduated price increment scale (e.g. tenths of a cent for stocks valued less than $2, one-cent increments for stocks valued more than $2 but less than $100, and greater increments for the highest priced stocks) would likely result in greater stability in the BBO.[15]

## IV. Drivers of Recent Market Improvements

The beneficial evolution of the quality of U.S. markets over the past decade has been driven by two factors. First, the Commission's use of rulemaking to promote broad and fair

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12 *See* Post TSE Arrowhead Upgrade, Markets Update, February 2010, Bank of America Merrill Lynch (citing a decline in the bid-offer spread of Nikkei 225 stocks from 19 bps to 15 bps). *See also* TSE's Arrowhead Reduces Cost of Trading Japanese Equities, Investment Technology Group, March 9, 2010 (citing a decline across all TSE issues of 24.4 bps to 20.7 bps).

13 *See* Credit Suisse Portfolio Strategy, Asia Pacific, February 17, 2010 at 3.

14 *See Id.* at 4.

15 Some observers have also claimed that higher order cancellation rates overload network and computer systems. Based on our experience, such arguments do not ring true. Exchanges have invested heavily in technology and can easily handle current messaging traffic; if they cannot, they can contact participants directly to manage resource usage. Similarly, exchanges provide all members with network capacity guidelines, and adjust these guidelines accordingly. Finally, it is important to note that participants have multiple options with regards to market data, and many lower bandwidth options (e.g. CQS) generally are not affected by all or even most order cancellations.

access has opened participation in the market to a diverse set of market participants whose vigorous competition results in better market quality and reduced systemic risk. The single monopolist specialist quoting a market measured in eighths has been replaced by numerous market makers competing to offer the best price in the world. The market makers compete on a level playing field, without any bequeathed right to make exclusive markets or enjoy special priority, knowing that they can only conduct their business if they offer the best liquidity to investors.

Second, the rapid development of new technologies has reduced costs and improved pricing efficiency. Processing costs have declined as back office operations have become automated and more efficient, and the automation of functions on the trading desk have resulted in reduced trading costs, which are passed on to investors because of the vigorous competition in the markets. The use of technology to employ more sophisticated and precise models, and to execute risk-mitigating transactions immediately, has enabled participants to improve their price efficiency, and again deliver these economic benefits to investors.

A natural outcome of this increased and diversified competition is the dispersion of increased liquidity across market centers. As envisioned by Regulation NMS, technology has integrated and connected dispersed market centers, capturing the benefits of robust competition among market centers while permitting investors to access several market centers simultaneously. In many cases, investors may be unaware of which market center executed their trade but, because of Regulation NMS, they can have confidence that they received the best execution across all markets. Dispersion of liquidity is not a new phenomenon and has historically existed among various types of markets, including the cash, futures, options, and international equities markets, creating healthy competition and reducing systemic risk by creating multiple market structures for investors. The recent evolution of dispersion within the equity markets enjoys the same benefits, with lower costs through increased competition among market centers, and the elimination of "single points of failure" through diversification among multiple exchanges, technology platforms, and market makers.[16]

Investors have benefited significantly in recent years from the development of new, innovative technologies and business models. Regulation NMS and Regulation ATS in large part provided the incentives and flexibility necessary for these innovations to take root, without favoring one business model over another or drawing unwarranted bright line distinctions between market participants based on their investment objectives or trading strategies. Indeed, in many cases these distinctions are extremely difficult to draw. Does a mutual fund (or hedge fund) that on a regular basis conducts intra-day trading on behalf of individuals who generally have a multi-month holding period qualify as a long-term investor? If changes in market conditions or a long-term investor's own financial condition lead the investor to temporarily change its trading strategy or investment horizon, should that investor be re-categorized as a short term trader? Additionally, those claiming the mantle of long-term

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[16] While dispersion in liquidity has fostered competition and robustness to the financial markets, dispersion of the regulatory function to exchanges makes little sense and should be centralized in regulators that have a view of the securities markets as a whole.

investors may themselves have divergent interests: a large "buy side" institution might argue against increased transparency in dark pools in order to mitigate information leakage concerns, while a small retail investor may argue for increased transparency in dark pools to facilitate price discovery in the public markets. In both cases, the "long-term investors" typically transact with the "short-term traders" in a beneficial symbiosis.

Regardless of categorization, all market participants benefit from efficient markets and, in our view, rulemaking therefore should focus on improving market quality and efficiency, not classifying the business models employed. Regulatory measures that would favor one business model over another – such as mandating a minimum duration for orders or restrictions on taking liquidity – not only do not help, but also would ultimately harm, investors by entrenching selected existing participants, stifling innovation and decreasing market quality.

Similarly, any discussion of high frequency trading should focus on market behavior, trading strategies and business practices, not labels. All market participants exhibit some of the characteristics associated with high frequency trading, rendering such a categorization of limited precision, let alone utility. Retail investor orders are handled by high-speed computers executing at exchange co-location facilities. Institutional investors employ sophisticated algorithms designed to "beat" the volume weighted average price for various securities. Proprietary trading desks of large financial institutions may employ all of the above techniques in their trading. Ultimately, each participant should be judged on their behavior, not their business model. A system of examination and vigorous enforcement should be geared toward detecting and preventing illegal or manipulative conduct by any market participant. For example, an "order anticipation" strategy that constitutes front-running is clearly illegal, regardless of whether it is operated by a handful of dishonest brokers manually entering orders learned of in person or over the telephone or a handful of dishonest traders using a computer to enter orders. A "momentum ignition" strategy that manipulates the market is also illegal, regardless of the type of participant conducting the trading or the technology that the participant uses. In either case, the behavior should be investigated, stopped, and punished, no matter what type of firm perpetrates the activity.

The importance of protecting investors from manipulative conduct does suggest, however, that the Commission should appropriately distinguish regulated broker-dealers – who possess the proper training, experience, policies and procedures, and who are subject to regular examinations and ongoing oversight – from more opaque entities that are unregistered and largely unregulated.[17] While recent initiatives to identify large traders will assist in gathering more data on the activities of such entities, we believe that it will be beneficial to the Commission to collect additional order-level audit detail from such entities (as well as registered broker-dealers), as described below in our Recommendations. Even with the additional information, however, such unregistered entities would still have far fewer obligations and

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[17] As the Commission notes in the Concept Release, high frequency trading strategies are conducted by a wide range of market participants, including not only regulated entities such as investment banks and other registered broker-dealers, but also unregulated proprietary trading groups and even hedge funds.

controls in place than registered broker-dealers, and their behavior would warrant additional surveillance.

Our experience has been that the tools and strategies of high frequency trading employed by many market participants are a natural consequence of improvements in information technology and broad access to the markets, and have benefited the markets and long-term investors through reduced bid-offer spreads and a diversification of liquidity provision.[18] Specifically, the use of information technology has permitted participants to price more precisely and manage risk more effectively, improving efficiency and resulting in the narrower bid-offer spreads of the past few years. The democratization of access to the markets has enabled many new entrants to provide liquidity, and today's markets are no longer dependent upon a single firm or model to function properly. Indeed, the financial crisis disproved the myth of "phantom liquidity that disappears when most needed by long-term investors and other market participants." Our firm, an automated market-maker which shares many of the characteristics associated with high frequency trading, more than tripled our volume during the financial crisis, providing liquidity when most needed by long-term investors.[19] Our anecdotal understanding is that other independent electronic market makers saw similar increases in volume. Far from providing "phantom" liquidity, it seems that the market makers that utilized high frequency trading technology provided substantial liquidity when our markets needed it most – and when more traditional, less technologically advanced market makers were unable or unwilling to do so.

## V. Recommendations

Although the recent evolution of market structure has produced unprecedented market quality, EWT believes that the Commission can continue to refine market structure and create greater market quality for investors in certain specific areas.

### *A. Fair Access*

#### *i. ATS Fair Access*

The Commission's regulation of access to exchanges and electronic communication networks (ECNs) has played a large role in the democratization of the markets, permitting numerous firms to connect and trade upon the exchanges on a level playing field.

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[18] As an analyst with the Federal Reserve Bank of Chicago recently observed, "There is evidence that high-frequency algorithmic trading also has some positive benefits for investors by narrowing spreads—the difference between the price at which a buyer is willing to purchase a financial instrument and the price at which a seller is willing to sell it—and by increasing liquidity at each decimal point." *See* Carol Clark, "Controlling risk in a lightning-speed trading environment," Chicago Fed Letter, March 2010, *available at* http://www.chicagofed.org /digital_assets/publications/chicago_fed_letter/2010/cflmarch2010_272.pdf.

[19] Average daily market volumes for all market participants in September and October 2008 were roughly 1.5 times the average daily volume of the second quarter of 2008. EWT's average daily volumes for September and October, in contrast, were 3.8 times and 3.4 times second quarter average daily volume, respectively.

However, the recent increase in volume executed off-exchange in alternative trading systems ("ATSs") threatens to reverse this trend, subjecting a substantial portion of equities volume – including a disproportionate amount of retail investor order flow – to a regime in which access is limited and provided only under terms dictated by private companies. We recommend that the Commission re-evaluate the threshold for the fair access requirements of Regulation ATS and mandate fair access once an ATS conducts more than 0.25% of the volume in an NMS security. Furthermore, we recommend that fair access be more broadly defined to include equal access to application connectivity interfaces and network connectivity services. Just as broader access to the exchanges a decade ago brought competition and transparency to those markets, requiring ATSs to provide broader access on equal terms will bring appropriate competition and transparency to this fast-growing segment of the markets.

*ii. Co-Location*

Co-location is also an issue of fair access. The SEC should regulate co-location availability to regulated broker-dealers and pricing in the same manner that it regulates other exchange access fees, thereby safeguarding the fairness of co-location services without reducing the significant benefits they provide to investors. Among these benefits, co-location has reduced latency and thereby both decreased risk and increased efficiency. Co-location has also served as an equalizer for market access, supplanting the oligopolistic "seats" and "floor privileges" models of the past by providing a uniform means of market access to all participants. From a risk management perspective, co-location facilities provide redundant power supplies, temperature control, physical security and on-call technical support, providing market centers confidence in the technical resiliency of participants' connectivity to market center systems. Reductions or restrictions of co-location would not only decrease market efficiency, but would also reduce the fairness of the markets, as firms would scramble to relocate in nearby data centers, and various unregulated vendors would hawk their exchange connectivity solutions to market participants.

We also disagree with some proposals to restrict participants utilizing co-location services from sending orders to execute against resting orders. While we – similar to many of the supporters of such proposals – are market makers who may gain a relative advantage from restrictions on the activities of other participants, we feel that such proposals are inherently unfair and damaging to the overall health of the markets. Fair access should be a fundamental principle of our markets. While the provision of liquidity is a critical function in our markets, it must be recognized that trades only occur when someone crosses the bid-offer spread to execute against the NBBO. Executing against the NBBO is also necessary for fast and efficient risk mitigation through hedging activities. Consequently, restricting co-location to only certain activities would likely create a two-tiered market, with a select handful of firms and business models able to utilize co-location and a majority of investors relegated to slower, second-tier access to the market. Co-location services should be available to all market participants, with no preferential pricing and no special treatment for high volume participants or other categories of participants.

*iii. Market Data*

The current array of options for obtaining market data – directly from the exchanges, through CQS, and through various aggregators – provides a compelling spectrum of solutions that should be maintained. Nevertheless, there is room for improvement of the CQS system. Based on the published latency statistics, it appears that the plan processors could improve their systems and significantly reduce latency to one or two milliseconds. Such improvements would produce a better outcome for investors than mandating artificial delays for exchange market data feeds. Artificial delays would seriously detract from market efficiency, would not change the fact that some participants can and always will process data faster than others, and would introduce unfair information advantages between those participants who handle more order flow (and therefore have a picture of the markets milliseconds before the public) and those who do not.

***B. Transparency***

*i. Enhanced Audit Trail*

While the Commission has already launched initiatives to identify the portion of volume that comes from unregulated firms, market surveillance would be improved by arming regulators with additional detailed data. The FINRA OATS system currently provides FINRA with detailed end-of-day data on all orders placed in non NYSE-listed securities and provides regulators with extensive data on market activity. We propose extending OATS to cover all NYSE-listed securities, thereby covering all securities. Also, OATS submissions should be augmented with a unique firm identifier so that the activity of unregulated participants can quickly be identified.[20] By having comprehensive order data available on a daily basis, the Commission will be able to conduct surveillance much more efficiently. This system could replace both the outdated Electronic Bluesheets System and bespoke requests for trading and order data that occur during annual examinations, resulting in significant cost savings for both broker-dealers and the Commission.

*ii. Customer Order Tickets*

Enhanced transparency for customers would assist in market surveillance as well, permitting customers to clearly evaluate the incentives driving the execution of their order and the parameters under which their execution was deemed the best execution possible. Accordingly, we recommend that the Commission enhance disclosure on customer order tickets by requiring the timestamp of order entry and execution (at least at a granularity of seconds) and a disclosure of routing practices (including the MPID of the executing broker, if the order was internalized or handled off-exchange). The Commission should also consider whether or not an

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[20] While the Large Trader Identifier proposed by the Commission on April 14, 2010 would provide this information for large broker-dealers and unregulated firms, we would recommend requiring identifiers for firms of all sizes.

opt-in should be required from customers in order to subject their orders to internalization and off-exchange execution, as customers' incentives for best execution may not be aligned with those of the internalizing or routing broker in such cases.

### *C. Efficiency and Resiliency*

#### *i. Cancel on Disconnect*

To mitigate the risk of exchange failures, all market centers should be required to support cancel on disconnect functionality. Cancel on disconnect functionality provides the option to automatically cancel all of a participant's open orders if there is any disruption in connectivity between the exchange and that participant.[21] Despite state-of-the-art redundant technology, connectivity problems do arise from time to time with each exchange (many times this is outside the control of either the exchange or participant, but due to a failure of a telecommunications provider). Without cancel on disconnect functionality, a participant is faced with market exposure but no viable means for managing this exposure. With cancel on disconnect functionality, however, the exposure would immediately be eliminated, reducing risk to the firm and other participants. This simple solution has long been available in many market centers, but should be a required offering of all market centers.

#### *ii. Market Priority Models*

The Commission should prohibit "pro-rata" priority models. Some markets have launched or are considering launching various pro-rata models in which execution priority at a given price point is not determined based on the time of order entry, but rather on either the size of one's orders ("general allocation") or one's membership class ("tiered allocation"). Both methods are troubling because they permit certain market participants to step ahead of other market participants. For example, if a retail investor placed a limit order to buy 100 shares at $14.43, and minute later a day trader placed a limit order to buy 1000 shares at $14.43, the general allocation pro-rata algorithm would allocate a marketable sell order completely to the day trader and not the retail investor.

Our experience in other asset classes that employed similar allocation models was that participants had the incentive to post orders for greater size than they actually desired, in order to gain priority. The result was not only excessive risk taking, but very poor quality liquidity. Quantities on the bid and offer changed rapidly and dramatically, and since there was no incentive to rest orders on the book, there was no depth of liquidity. Movement of the best bid and offer was erratic and often jumped multiple price points at a time, resulting in price gaps with much greater frequency than are typically experienced in normal price-time priority markets.

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[21] *See* Letter from Craig Donohue, Chief Executive Officer, CME Group Inc., to Elizabeth M. Murphy, Secretary, the Commission, dated April 21, 2010.

Tiered pro-rata allocation models, where some participants (e.g. designated market makers, supplemental liquidity providers) are guaranteed the ability to step ahead of general market participants, and in some cases see additional information about incoming orders, suffer from many of the same problems. Such programs are a step backward in the evolution of our markets and undermine the trend of democratization, fair competition and diversification of liquidity provision.

*iii. Market Fee Models*

To date the Commission has struck the appropriate balance between regulation and free markets by setting limits on the fees that market centers can charge, while also permitting market centers to develop their own liquidity incentive plans within those limits. Naturally, as Regulation NMS requires certain routing to all market centers, the Commission must have the ability prevent distortion of the markets by regulating the trading fees of each market center.[22] Similarly, the Commission should ensure that incentive pricing plans do not encourage behavior with no direct benefit to the markets, and that plans do not disadvantage market participants on the basis of arbitrary classifications. We note that volume-based fees and volume-based rebates raise questions under both standards. In order to obtain volume rebates, many firms aggregate their order flow under a single firm's MPIDs, complicating market surveillance efforts and creating a tangled web of broker-dealer oversight with respect to the order flow. The alternative is for these firms to operate at a relative disadvantage due to increased exchange fees. Accordingly, the Commission should consider what modifications to, or restrictions on, this fee structure would best enhance fairness and reduce incentives for MPID sharing.

*iv. Minimum Pricing Increments*

As noted above, we encourage the Commission to consider a graduated price increment scale (e.g. tenths of a cent for stocks valued less than $2, one-cent increments for stocks valued more than $2 but less than $100, and greater increments for the highest priced stocks) to address this phenomenon in a more consistent manner. We agree with the Commission that the larger percentage spread in low-priced stocks may lead to greater internalization by OTC market makers and more trading volume in dark pools. The larger percentage spreads per pricing increment means that more volatility can be absorbed without an observed movement in price, which presents less risk to the OTC market maker and creates a greater profit incentive for the OTC market maker to internalize. Because this creates more intense competition for priority at each price point in the public markets, there is correspondingly greater value in gaining priority in the "order flow" waterfall, and therefore greater incentive to use internalization and dark pools to obtain that priority.

We recognize that, if the minimum price increment is reduced to less than one cent, there is a risk of an economically self-crossed market where the "best" bid is actually more

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[22] *See* Release No. 34-51808, 70 Fed. Reg. 37496, at note 243 (noting the rationale for the cap on market access fees under Rule 610 of Regulation NMS).

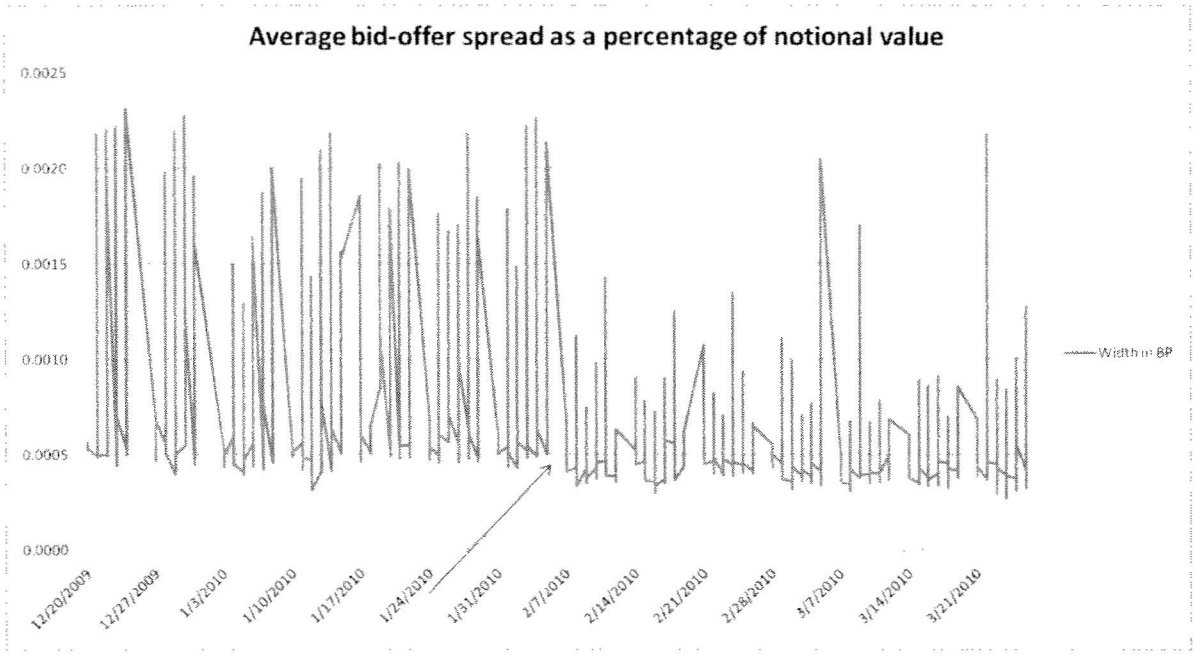
expensive to transact against than the an inferior bid on another exchange when exchange fees are taken into account. To address this potential problem, we would suggest either selecting an increment greater than the largest exchange fee spread (i.e. greater than $0.0060) or permitting trade-through of up to one cent.

*v. Depth-of-Book Protection*

Rule 611 should not be expanded to encompass "depth-of-book" protection, which would be neither feasible nor cost-effective. From a technical perspective, some market centers have yet to demonstrate that they can disseminate depth-of-book market data in real-time. Furthermore, if market centers were able to publish such data in real-time, the amount of data that broker dealers (and regulators) would be required to receive, process, and maintain would increase exponentially, dramatically increasing costs and adding significant complexity to compliance efforts. As the Commission has already raised the question of whether or not the plan processors can adequately handle today's top-of-book data, their ability to handle depth-of-book data should be approached with some level of skepticism. These difficulties would come with little incremental benefit: depth-of-book protection would only impact the percentage of marketable orders whose size and aggressiveness exceed the available liquidity at the best price across all market centers.

*vi. Minimum Order Lifetime*

Based on our experience, proposals to mandate a minimum order lifetime (i.e. minimum time between placement and cancellation) would cause significant harm to market quality by increasing the risk borne by market makers and thus causing them to increase their bid-offer spreads. In addition to the analysis presented in our comments on market quality, our experience with markets where the active and immediate management of orders was restricted (either intentionally through throttles or de facto through poor technology) has been reduced market quality. For example, for the past two years, an electronic commodities market experimented with minimum order lifetimes of varying degrees, before eliminating the requirement altogether in the interest of market quality. After the minimum order lifetime requirement was removed, the average bid-offer spread decreased by over 50%, the standard deviation of the bid-offer spread decreased by over 50%, and the quantity on the bid and offer slightly increased:




This experiment clearly demonstrated the direct positive impact of timely and immediate control of orders on the ability to maintain a tight and liquid market. More broadly, the same experiment has played out in our equities markets over the past ten years, as the de facto restrictions on order cancelations have gradually been lifted through improved technology, and market quality has improved for all investors.

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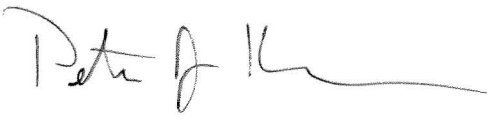
EWT appreciates the opportunity to comment on the Concept Release and would be pleased to discuss any of the comments or recommendations in this letter with the Commission staff in more detail. If you have any questions, please do not hesitate to contact the undersigned at (310) 651-9746.

Sincerely,



Peter Kovac
Chief Operating Officer and
Financial and Operations Principal

cc: Mary L. Schapiro, Chairman
Kathleen L. Casey, Commissioner
Elisse B. Walter, Commissioner
Luis A. Aguilar, Commissioner
Troy A. Paredes, Commissioner

Robert W. Cook, Director
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