March 29, 2010

Via Email to rule-comments@sec.gov

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

Re: File No. S7-03-10 Risk Management Controls for Brokers or Dealers with Market Access

Dear Ms. Murphy,

FTEN, Inc. ("FTEN")[1] appreciates the opportunity to comment on Rule 15c3-5 Risk Management Controls for Brokers or Dealers with Market Access (the "Rule") under consideration by the Securities and Exchange Commission (the "SEC").

Federal Reserve Chairman Ben Bernanke defines systemic risk as "developments that threaten the stability of the financial system as a whole and consequently the broader economy, not just that of one or two institutions."[2] We agree with commentators that high frequency trading is an increasingly important element of U.S. and international financial markets due to its positive influence on market liquidity, transparency and price discovery[3]. We support the Rule's fundamental premise that systemic risk caused by high frequency trading needs to be adequately addressed in order to protect against systemic loss. In addition, we believe reasonable and effective management of the risks associated with high frequency trading is necessary to avoid potential "backlash" which could lead to overregulation and possible prohibition of this beneficial business practice.

As noted by the SEC in the commentary accompanying the Rule filing, high frequency trading is pervasive across the industry. High frequency traders often interact with the markets through simultaneous and diverse means - separated both physically (on numerous Exchanges and ATSs) as well as via various trading mechanisms (e.g., Sponsored Access, Smart Order Routing, Direct Market Access, etc.) trading various asset classes. High frequency traders generally do not trade on only one system or at only one venue, and do not trade only one asset class. And, because of the tremendous speed at which significant potential exposure can be accumulated, traditional methods of dealing with infractions "after the fact" via regulatory audits, penalties and sanctions are insufficient control mechanisms to safeguard the systemic integrity of the financial markets.

To safeguard the systemic integrity of the U.S. financial markets, we suggest that risk management controls ensure the following:

I. Physical and Relationship Independence of Risk Controls;

II. Risk Controls with Cross-Market / Account Level Awareness;

III. Real-Time Trade Flow Controls; and

IV. Consistent Application, Auditing and Enforcement of Risk Management Controls.

[1] As an independent third party technology solutions provider, FTEN enables prime brokers, clearing firms, broker-dealers, hedge funds, proprietary trading groups, exchanges and alternative trading systems to achieve greater access, speed and control through scalable, low-latency routing, real-time intra-day risk management, compliance, surveillance and market data services (see http://www.securitiesindustry.com/issues/19_100/-23702-1.html?zkPrintable=true). On October 30, 2008, FTEN announced strategic minority investments in the company by Merrill Lynch, Goldman Sachs, J.P. Morgan, and Credit Suisse in connection with FTEN's initiatives to redefine global financial securities risk management, compliance and surveillance (see http://www.wallstreetandtech.com/financial-risk-management/showArticle.jhtml?articleID=211800273).

[2] October 30, 2009 letter from Federal Reserve Chairman Ben Bernanke to Sen. Bob Corker (R., Tenn.) - member of the Senate Banking Committee.

[3] For example, see http://www.tradersmagazine.com/news/high-frequency-trading-benefits-105365-1.html?zkPrintable=true; http://www.bloomberg.com/apps/news?pid=20601109&sid=aBBFQ6thBuiY; and http://www.securitiesindustry.com/news/-24116-1.html.

I. Physical and Relationship Independence of Risk Controls

A. Need for Physical Independence - Danger of Physically Integrated Approaches to Systemic Risk Management

Although their speed differential, if any, is measured in mere microseconds, physically integrated risk management systems (i.e., risk management systems that are located within the same physical computer chassis as a high frequency trading firm's algorithmic trading model or "Algo") can in certain circumstances process transactions faster than other (physically external) forms of risk management. However, in order to accomplish the Rule's objective of reducing systemic risk in the marketplace, risk management calculations and reference data used for risk calculations (e.g., positions, risk levels, breach history, etc.) should be required to be located physically independently from the computer chassis housing the Algo. This is because physically integrated risk management systems are subject to the same equipment and environmental conditions that can cause failure or malfunction of the Algo itself. Excessive Central Processing Unit ("CPU") consumption by the Algo can also impede or entirely prevent risk management operations in a shared chassis environment. Physically integrated risk management systems can fail simultaneously with an Algo failure due to shared chassis malfunction or because the Algo is consuming excessive CPU power. In both situations, this could result in failure to prevent improper trading activity and in addition, due to the loss of critical risk management calculations and reference data, failure to mitigate damage caused by unwanted transactions and failure to comply with regulatory reporting, compliance and surveillance requirements. [4]

It should be noted that the limitations of physically integrated risk management systems exist regardless of who "controls the control." Even if an unrelated third party provides risk management controls via a physically integrated risk management system, those risk management controls are still subject to potential simultaneous failure within the shared computer chassis, and to ineffectiveness due to high CPU utilization by the Algo.

B. Need for Relationship Independence - Systemic Risk Management Should be Controlled by Non-Affiliates

In order to achieve the SEC's systemic risk management objectives with regard to high frequency trading activity, risk management should be controlled by a party independent from the trading entity except as indicated below. Otherwise, some trading firms may be tempted to conduct cost-benefit analyses to determine whether profits generated by non-compliant trading activities are offset by unlikely detection and / or de minimis fines. To establish requisite independence, the SEC should use the established definition of an "affiliated person" under Exchange Act Rule 10A-3(e)(1)(i) which, by analogy, would require that risk management be controlled by someone other than "a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with" the trading entity.

The approach currently taken by the Rule requires that firms not receiving independent risk management become registered as Broker Dealers and become members of Exchanges / ATSs. This requirement would subject them to SEC and Self Regulatory Organization ("SRO") disciplinary actions, sanctions and penalties for failure to comply with the requirements of the Rule. However, if the goal of the Rule is to protect against systemic loss in the marketplace then "after the fact" disciplinary actions, sanctions and penalties alone are ineffective to *prevent* financial loss to innocent counterparties and clearing firms[5] in the first place.

The SEC should require that risk controls be managed by a party that is not "affiliated"[6] with a trading firm unless the firm manages its own risk controls and clears its own trades to avoid exposing third party clearing firms to potential losses - e.g., proprietary trading groups. Changes should also be considered to the National Securities Clearing Corporation ("NSCC")

[4] Risk management calculations and reference data for risk calculations (e.g., positions, risk levels, breach history, etc.) located physically independent from a computer chassis housing an Algo that has gone awry will retain account level and market wide awareness of the Algo's orders / executions in the market which supports immediate remedial action (e.g., permitting 'liquidate only' transactions) to reduce the scope of exposure and limit systemic impacts to the market as well as ensure compliance with regulatory reporting, compliance and surveillance requirements. In the same situation, physically integrated risk management systems could permanently lose all information.

[5] If an Algo malfunction / failure depletes the assets of a high frequency trading firm to the point that it goes bankrupt, the clearing firm for the high frequency trading firm will suffer losses from all "locked-in" trades and counterparties can suffer damages that ultimately have to be covered by the clearing firm or by other NSCC member firms. The fact that SEC / SRO disciplinary actions, sanctions and penalties exist against the bankrupt high frequency trading firm does not provide effective remedy or redress to such innocent third parties.

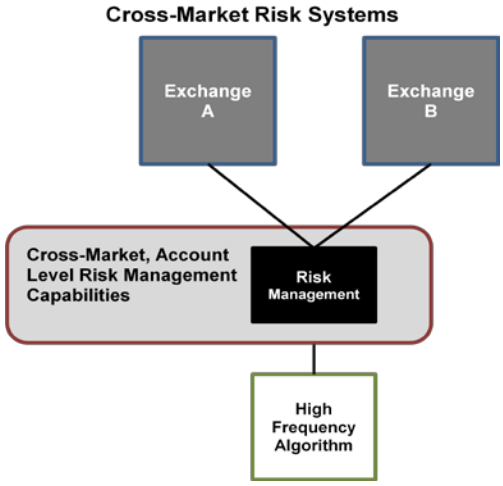
[6] As defined in Exchange Act Rule 10A-3(e)(1)(i).

Procedure XV, Clearing Fund Formula and Other Matters[7], which only requires a $10,000 clearing fund deposit for a trading firm that transacts business in securities that "settle" each day. This change is proposed because the biggest danger presented by a self-clearing high frequency trading firm is that an Algo could erroneously accumulate significant holdings (both long and short) in a single trading day which the firm would not have the financial ability to stand behind or to "settle." If this occurs, and it is the first time that the high frequency trading firm has not "settled" by day end, it would not have been previously required to increase its clearing fund deposit. A high frequency trading firm that has historically gone "flat" (i.e., has "settled" at the end of each trading day) would only have a $10,000 NSCC clearing fund deposit - an amount which should be increased to reduce risk to other NSCC members in the event of bankruptcy of a high frequency self-clearing firm due to the contractual obligation of members to make up for shortfalls in the ability of another NSCC member firm to cover its losses.

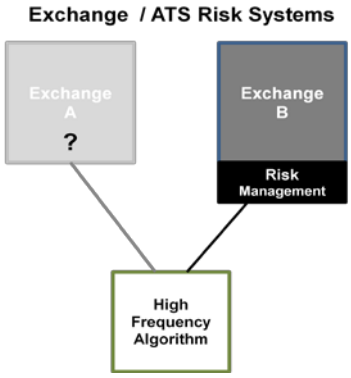
II. Risk Controls with Cross-Market / Account Level Awareness

In order to address systemic implications, account level awareness - a fundamental prerequisite for effective systemic risk management - should not be limited to the aggregation of orders / executions at any particular Exchange / ATS. Rather, account level awareness should include account level trading activity across all liquidity destinations as well as impacts of changes in market conditions on existing securities positions which can lead to significant losses even absent current trading activity.[8] Risk management tools provided by Exchanges / ATSs fail to address systemic concerns because they lack cross-market, account level awareness. An individual Exchange / ATS risk management system only has order-level awareness, and it only knows about trading activity in its own environment. Exchange / ATS risk checks are unaware of orders, executions, locates consumed and positions of trading entities in other liquidity centers. Because of these "blind spots," Exchanges and ATSs cannot see impacts across the market specific to individual trading entities and therefore their risk controls are ineffective to prevent systemic loss - i.e., risk beyond the purview of their particular liquidity center. Therefore, it is imperative that cross-market, account level systemic risk controls like those specified in the Rule be mandated to prevent systemic errors from occurring in the first place.

We propose the Rule be implemented initially across all Exchanges and ATSs with regard to single asset class risk controls and subsequently implemented to take into account cross asset risk controls.[9]



Consistent account level risk controls across venues



Order level venue specific risk checks only

[7] See pages 242 through 251 of National Securities Clearing Corporation Rules & Procedures (available at http://www.dtcc.com/legal/rules_proc/nscc_rules.pdf)

[8] For example, if the market moves against outstanding short positions, then losses can quickly accumulate beyond committed capital allocations even without current trading activity. This is an important factor to consider for effective systemic risk management. Exchange / ATS risk management systems fail to address this factor.

[9] This approach would also facilitate potential coordination with the Commodity Futures Trading Commission with regard to systemic risk management across all asset classes.

III. Real-Time Trade Flow Controls

The increased velocity of trades entering the market as a result of high frequency trading has caused a "temporal shift" in the industry - perspectives and priorities previously associated with execution risk and clearing risk and pre-trade and post-trade risk management are converging. Disciplinary actions, sanctions and penalties alone are inadequate to protect financial markets against systemic loss[10]. Real-time risk checks and automated safeguards should be mandated at those points in the trading process where relevant and necessary information becomes available to limit potential systemic implications to the market. While real-time risk management is critical particularly with respect to high frequency trading, we believe a more representative view of a trading firm's overall position and risk profile is available via an algorithmic approach versus an order-only approach to risk management. The Rule as currently drafted appears to require treatment of all potential and resting orders as if they were executed without giving effect to actual executions and cancellation rates. We believe this approach is unduly restrictive and would have a significant negative impact on market liquidity with minimal increased systemic protection over alternative algorithmic approaches to risk management.

We suggest that the SEC mandate real-time trade flow controls which incorporate an algorithmic approach to resting orders, executions and cancellation rates in order to accomplish desired improvements in systemic risk management without adversely impacting liquidity in the marketplace. For example, orders having a 100% chance of violating regulations (e.g., Single Order Quantity, Single Order Value, Restricted Stock, etc.) should be prevented from ever entering the marketplace whereas orders that would trigger a regulatory infraction only where changes to account positions and / or market conditions occur should be addressed with a more algorithmic approach. If, for example, a committed capital risk control is desired, rather than counting all potential and resting orders as executions (which would significantly curtail liquidity[11]), orders and executions should be tracked and when executed orders reach a pre-defined percentage of the desired committed capital allocation then all open orders should be cancelled and additional orders prevented from entering the market (other than perhaps orders that would help to ameliorate the situation). Another potential approach would involve taking into consideration liquidity and volatility of a subject security together with relative positions of resting orders within the active "book" for that security to determine the likelihood of exposure and the appropriate time to cancel open orders, etc.

IV. Consistent Application, Auditing and Enforcement of Risk Management Controls

Unless the SEC mandates the specific requirements for systemic risk controls, implementation of risk checks by different market participants will be inconsistent. As a result of such inconsistencies, SEC / SRO audits will be more costly, less efficient and less effective, leading to "regulatory arbitrage" at the Broker Dealer level and resulting in disparate application of regulatory standards. We propose that the SEC require use of the following algorithmic-based Real-Time Risk Management Checks[12] across all financial markets at the order level and account level, as appropriate. [13]

Order Level Risk Checks for Equities

Risk Checks	Description	Exchange / ATS Solution	Cross-Market Solution
Price checks	Comparison of current market price with order price to ensure trade is within accepted tolerance. If not, order is rejected.	☑	☑
Order Type Checks	Restricts pre-defined, specific order types. Order types not allowed are rejected.	☑	☑

[10] See supra, note 5.

[11] For example, high frequency trading firms that utilize trading strategies with high cancellation rates would prematurely consume allocated committed capital and could not engage in additional legitimate trading once the total of their potential and resting orders reach their specified threshold.

[12] These Real-Time Risk Management Checks were submitted to the SEC on April 29, 2009 in the context of NASDAQ's proposed sponsored access rule (File No. SR-NASDAQ-2008-104). See http://www.sec.gov/comments/sr-nasdaq-2008-104/nasdaq2008104-12.pdf

[13] Effective implementation of these or other Real-Time Risk Management Checks will require that they be controlled by independent parties, on a cross-market / account level basis in real-time as set forth in Sections I, II and III above.

Short Sales/Locates	Ensures full compliance with Reg SHO with regards to locate management and decrements.	☐	☑
Restricted List	Stops a client's attempt to trade a stock that is on the Restricted Stock List.	☑	☑
Easy to Borrow	Stops a trade that attempts to short a symbol not on the ETB list or without a valid locate.	☐	☑
SOQ Limit	Pre-set limit for the maximum share count allowed on an order. If the order share count is higher than this limit, order is rejected.	☑	☑
SOV Limit	Pre-set maximum dollar value allowed for a single order. If the order value is higher than this limit, order is rejected.	☑	☑

Account Level Risk Checks for Equities

Risk Checks	Description	Exchange / ATS Solution	Cross-Market Solution
Buy Limit	Running sum of all Buy orders (shares x price) consumed for the day for all activity across all exchanges. If account exceeds this limit, all inbound orders will be rejected and current open orders will be cancelled.	☐	☑
Committed Capital Limit	Pre-set limit for the amount of Net Committed Capital available for this customer account for all activity across all exchanges. If the account exceeds this limit, all inbound orders will be rejected and current open orders will be cancelled.	☐	☑
Committed Capital Used	Running sum of Committed Capital Used for all activity across all exchanges. Committed Capital Used increases when Buys add to long positions and Sells add to Short positions. Committed Capital Used is reduced when Buys offset existing Short position and Sells offset Long positions. If the account exceeds this limit, all inbound orders will be rejected and current open orders will be cancelled.	☐	☑
Gross Market Value Limit	Pre-set limit for current market gross value of total unboxed positions (total open longs at market + total open shorts at market) for all activity across all exchanges. If the account exceeds this limit, inbound orders will be rejected and current open orders will be cancelled.	☐	☑
Long Market Value Limit	The current market value of long positions across all activity across all exchanges. If the account exceeds this limit, all inbound orders will be rejected and current open orders will be cancelled	☐	☑

Sell Limit	Running sum of all Sell orders (shares x price) consumed for the day for all activity across all exchanges. If the account exceeds this limit, all inbound orders will be rejected and current open orders will be cancelled.	☐	☑
Realized P&L Loss Limit	Real-time Realized P&L Loss limit – reflected as a percentage of Committed Capital. If the account exceeds this limit, all inbound orders will be rejected and current open orders will be cancelled.	☐	☑
Unrealized P&L Loss Limit	Real-time Unrealized P&L Loss limit – reflected as a percentage of Committed Capital. If the account exceeds this limit, all inbound orders will be rejected and current open orders will be cancelled.	☐	☑

Order Level Risk Checks for Options

Risk Checks	Description	Exchange / ATS Solution	Cross-Market Solution
SOQ - Market Orders	Single Order Quantity check for options contracts that are market orders.	☑	☑
SOQ - Limit Orders	Single Order Quantity check for options contracts that are limit orders.	☑	☑
SOV - Market Orders	Single Order Value check for options contracts that are market orders.	☑	☑
SOV - Limit Orders	Single Order Quantity check for options contracts that are limit orders.	☑	☑
Max Number of Contracts by Name	Maximum number of contracts allowed under one name.	☑	☑
Restricted Products List	Rejects an order when a client attempts to trade a product on the Restricted Product List.	☑	☑

Account Level Risk Checks for Options

Risk Checks	Description	Exchange / ATS Solution	Cross-Market Solution
Max Position Quantity by Symbol	Total maximum number of contracts allowed for a specific underlying asset.	☐	☑

Committed Capital	Indicates when Net Committed Capital Used > Net Committed Capital limit.	☐	☑
Cash	Indicates when Net Cash Used > Net Cash limit.	☐	☑
Delta	Measures an option's sensitivity to changes in price of the underlying asset.	☐	☑
Gamma	Measures the delta sensitivity to changes in price of the underlying asset.	☐	☑
Vega	Measures an option's sensitivity to changes in volatility of the underlying asset.	☐	☑
Theta	Measures an option's sensitivity to time decay.	☐	☑

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FTEN appreciates the opportunity to provide feedback on the SEC's proposed Rule 15c3-5 Risk Management Controls for Brokers or Dealers with Market Access (File No. S7-03-10).

Sincerely,

Ted Myerson
Chief Executive Officer

Doug Kittelsen
Chief Technology Officer

M. Gary LaFever
General Counsel

cc: The Hon. Mary L. 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