CITADEL

July 21, 2014

Via Electronic Mail (rule-comments@sec.gov)

Kevin M. O'Neill
Deputy Secretary
Securities and Exchange Commission
100 F Street NE
Washington, DC 20549-1090

Re: Equity Market Structure

Dear Mr. O'Neill,

Citadel LLC[1] ("Citadel") appreciates the opportunity to provide comments to the Securities and Exchange Commission (the "Commission") as it engages in a review of U.S. equity market structure. We applaud the Commission's efforts to ensure that the U.S. equity markets serve the interests of investors.[2] In this regard, Citadel wholeheartedly supports the data driven and comprehensive review of U.S. equity market structure recently advocated by several members of the Commission.[3]

We agree that the Commission is pursuing the right path as it approaches its oversight and review of equity market structure. The Commission is taking constructive steps to gather and analyze relevant data and information, ensure the market's operational stability, and protect market quality and fairness.

First, the Commission has implemented several measures to obtain the data it needs to evaluate market operations, quality, and performance. For example, the Commission has adopted the Large Trader Rule and the Consolidated Audit Trail ("CAT") framework, and has implemented the MIDAS system through its new Office of Analytics and Research so that it can

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[1] Established in 1990, Citadel is a leading global financial institution that provides asset management and capital markets services. With over 1,100 employees globally, Citadel serves a diversified client base through its offices in the world's major financial centers including Chicago, New York, London, Hong Kong, San Francisco and Boston. Citadel Securities operates an industry leading market making franchise and an institutional markets platform. On an average day, Citadel accounts for over 14 percent of U.S. listed equity volume and over 20 percent of U.S. listed equity option volume.

[2] *See* Mary Jo White, Chairman, Securities and Exchange Comm'n, Chairman's Address at SEC Speaks 2014 (Feb. 21, 2014), *available at* http://www.sec.gov/News/Speech/Detail/Speech/1370540822127.

[3] *See* Daniel M. Gallagher, Commissioner, Securities and Exchange Comm'n, "Market 2012: Time for a Fresh Look at Equity Market Structure and Self-Regulation" (Oct. 4, 2012); Luis A. Aguilar, Commissioner, Securities and Exchange Comm'n, "Seeing Capital Markets Through Investor Eyes" (Dec. 5, 2013); Michael S. Piwowar, Commissioner, Securities and Exchange Comm'n, The Benefit of Hindsight and the Promise of Foresight: A Proposal for A Comprehensive Review of Equity Market Structure (Dec. 9, 2013); Kara M. Stein, Commissioner, Securities and Exchange Comm'n, Remarks before Trader Forum 2014 Equity Trading Summit (Feb. 6, 2014).

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efficiently gather key data and analyze significant market events and trading activities. The "Flash Crash" illustrated the need for the Commission to be able to reconstruct and analyze market events. In addition, as the Commission considers various assertions about problems with the current equity market structure and ideas for reform, the Commission needs a rich set of data to inform its analysis. This will ensure that the Commission is able to methodically make sound decisions and reject unsupported assertions.

Second, the Commission has sought to ensure the stability and operational functioning of our markets through the Regulation SCI proposal, the adoption of Rule 15c3-5 (market access), and the post–"Flash Crash" reforms addressing liquidity gaps through limit up/limit down and circuit breaker rules, along with more predictable clearly erroneous rules and the abolition of stub quotes. Those reforms, among others, have served to enhance confidence in our markets by minimizing incidents of disruptive trading and managing and mitigating the consequences of any systemic trading malfunctions that do occur.

Finally, the Commission, beginning with the 2010 Concept Release on Equity Market Structure, has committed to a broad review of equity market structure with the goal of maintaining and enhancing fair and efficient markets. In this endeavor, the Commission must consider how the markets are performing, especially with respect to the goals of promoting capital formation and serving long-term investors. Most recently, Chair White provided a roadmap for enhancing equity market structure by outlining a range of proposals designed to promote fair and efficient markets.[4] Chair White's roadmap is thoughtful and constructive and we provide further comments on certain aspects of her speech below.

We recommend that the Commission consider the following steps to improve market quality and shore up market resilience. Our recommendations are based upon our experiences and expertise as one of the largest market makers in the world and our role as an active institutional investor in the equity markets. Our principal recommendations include: (1) taking steps to encourage more displayed liquidity and to promote fair and open market access; (2) improving execution quality for retail and institutional investors by reducing tick increments to a half-penny for the most liquid low-priced stocks; (3) further increasing transparency of retail order execution quality by amending Rule 606 to provide additional and more accurate information to investors with respect to retail order execution and routing; (4) further protecting the markets from catastrophic trading malfunctions by requiring mandatory exchange kill switches; (5) supporting the removal of self-regulatory organization ("SRO") status for exchanges and eliminating exchange immunity from liability, particularly for their operational failures; and (6) subjecting all Alternative Trading Systems ("ATSs") to the requirements of proposed Regulation SCI.

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[4] *See* Mary Jo White, Chairman, Securities and Exchange Comm'n, Enhancing Our Equity Market Structure (June 5, 2014), *available at* http://www.sec.gov/News/Speech/Detail/Speech/1370542004312.

I. Encouraging Displayed Liquidity

In recent years, the U.S. equity markets have been so successful in large part because they are transparent and competitive. Publicly accessible order books allow market participants to know current fair market prices. This displayed liquidity (in the so-called "lit markets") is the cornerstone of the price discovery process that enables buyers and sellers to transact efficiently in the market.

In recent years, so-called "dark pools" have gathered market share. Dark pools were initially envisioned as platforms that would support the anonymous trading of large blocks of stock. Although they still provide this service, a material portion of the activity in dark pools today involves the trading of relatively small orders. In many cases, market participants support dark pools because they often charge less than exchanges. This added competition for exchanges has helped reduce overall trading costs for investors and has been a positive development for the equity markets.

Unfortunately, dark pools are allowed to discriminate. While the ability to interact with public quotes on the lit exchanges is available to all investors, a number of dark pools conduct and facilitate rampant discrimination. They do so by denying access to certain market participants, as well as by providing order types that do not interact with certain types of participants, giving execution priority to certain participants, or charging substantially different fees to different types of participants.

The Commission should take steps to put an end to this discrimination, which threatens to fracture our national market system. Specifically, the Commission should subject ATSs (which include most dark pools) to anti-discrimination rules comparable to those that apply to securities exchanges, and should require ATSs to offer fair and impartial access to all market participants.[5] The extensive discrimination by dark pools is corrosive and undermines the policy goals and underpinnings of Regulation NMS. The ability of investors to receive best execution is hampered by opaque and arbitrary discrimination hurdles that prevent investor orders from trading on dark pools, and customer orders sitting in dark pools are blocked from interacting with those participants kept out by discrimination.

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[5] Current ATS anti-discrimination rules are easily avoided by ATS operators. Because they become operative only on a symbol by symbol basis after an ATS exceeds 5 percent of market volume for an extended period of time, ATS operators can avoid them by managing their volume to stay below these parameters. Moreover, until now, there has been no way for market participants to know when an ATS has hit the volume threshold in a particular symbol because volume attributable to a particular ATS was not publicly reported. This will soon change with the recently effective FINRA ATS volume reporting requirements. *See* Self-Regulatory Organizations; Financial Industry Regulatory Authority, Inc; Notice of Filing of Amendment No. 1 and Order Granting Accelerated Approval of a Proposed Rule Change, as Modified by Amendment No. 1, to Require Alternative Trading Systems to Report Volume Information to FINRA and Use Unique Market Participant Identifiers, Exchange Act Release No. 71341, 79 Fed. Reg. 4,213 (Jan. 24, 2014).

In particular, ATSs should only be allowed to determine execution priority based on the characteristics of an order (*e.g.*, price, size, time of arrival), and should not be allowed to allocate executions based on the identity of the sender. Broker preferencing is a discriminatory practice that has the potential to return our markets to the "old boys" network of prior decades when who you were and who you knew mattered more than the merits of your order. Moreover, the consequences of the current ATS trading practices are that the primary source of price discovery, the lit markets, not only have diminishing volume, but also volume derived from the order flow that has been rejected by dark pools, generally referred to as "exhaust."

Furthermore, dark pools should be subject to increased transparency. FINRA's Rule 4552 is a sound beginning, though these disclosures should be made at the end of each trading day instead of weekly. We also agree with Chair White that ATS operational information and filings should be publicly available.

II. Market Quality

A. Half-Penny Tick Increment

The Commission recently ordered the exchanges and FINRA to jointly develop a pilot plan that would require certain stocks to be quoted and to some extent traded in minimum price increments larger than the current one penny trading increment (the so-called minimum "tick size"). We applaud the Commission for its efforts to gather hard data on this topic before embarking on any broader or longer-term policy changes. We nonetheless remain very concerned that widening tick sizes will artificially widen spreads and thus drive up trading costs for all investors without any tangible benefit to market quality.

We believe that the Commission should instead focus on tick increment reforms that will both promote liquidity on displayed markets and reduce the cost of trading. Specifically, the Commission should establish a half-penny tick increment for the highest trading volume stocks trading under a specified dollar value. We would expect the half-penny shaved off the one-penny increment to go directly into the pockets of investors. Furthermore, rather than having to go to dark pools to find mid-point liquidity in such stocks, smaller tick sizes would allow this liquidity to be displayed and readily accessed in the lit markets. This change in tick size would thus bring substantially more of the orders and trades in these stocks to lit markets, and move them away from the dark markets. In any event, the recently announced tick pilot plan, including provisions incorporating a "trade at" requirement, raises significant implementation and policy concerns, and we look forward to addressing these issues in a future comment letter after the SROs have submitted an NMS Plan.

B. Maker-Taker Fees and Rebates

The current NMS maximum access fee of 30 cents per 100 shares is now significantly greater than the cost of providing matching services by the exchanges and should be reduced to reflect the current competitive reality. Exchanges are permitted to share the access fees they charge with liquidity providers in the form of exchange rebates. A meaningful reduction in the maximum access fee would materially reduce exchange rebates.

In general, exchange rebates encourage exchanges and liquidity providers to be more competitive. Exchange rebates also reward and encourage displayed liquidity, which greatly benefits the price discovery process. Banning exchange rebates would dampen competition between exchanges, decrease posted liquidity, and could result in wider quoted spreads. The Commission has wisely focused on disclosure and other mechanisms in addressing potential conflicts of interest that may arise as a result of these fee structures. We believe a reduction in the minimum tick size for the most liquid low priced securities combined with a reduction in the maximum permitted access fee would serve the best interests of all market participants.

More importantly, we urge the Commission to close gaps by adopting an access fee cap in important segments of the market that have no access fee cap. First, the Commission should move forward with its proposed rulemaking to cap access fees in the options markets.[6] As discussed in our comment letter dated June 21, 2010, we firmly believe that an option market access fee cap would apply the same protections that benefit investors in the equity market to the options market.[7] Second, we urge the Commission to implement a parallel (and proportionate) access fee cap for sub-dollar stocks. Third, we urge the Commission to expand the access fee cap to include quotes that are not protected by Regulation NMS.[8]

C. Payment For Order Flow

We support the Commission's well-established position of permitting payment for order flow. Payment for order flow remains a transparent and regulated practice, whereby exchanges and market-makers pay a nominal fee to broker-dealers for routing orders to them. Payment for order flow that is subject to a robust disclosure framework is far better than opaque reciprocal business practices that cannot realistically be prohibited. Moreover, one likely response to a ban on payment for order flow would simply be greater internalization by routing firms, which would materially <u>increase</u> conflicts of interest. Finally, because payment for order flow does not alleviate a routing broker-dealer's obligation to seek best execution, any resulting conflicts of interest can properly be addressed by regulatory oversight of best execution requirements.

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[6] *See* Proposed Amendments to Rule 610 of Regulation NMS, Exchange Act Release No. 61902 (Apr. 14, 2010), 75 FR 20738 (Apr. 20, 2010).

[7] *See* Letter from John C. Nagel, Managing Director & General Counsel, Citadel Securities, to Elizabeth Murphy, Secretary, U.S. Securities and Exchange Commission (June 21, 2010), *available at* http://www.sec.gov/comments/s7-09-10/s70910-19.pdf.

[8] A non-protected quote is one that is not displayed by an automated trading center, disseminated in the consolidated quotation data, or is an automated quotation that is not the best bid or best offer displayed by an exchange or FINRA. For example, orders resting on an exchange at prices that are inferior to the best bid or ask prices at the time of the intermarket sweep print are not considered to be "protected" and may be traded through.

D. Odd Lots

Currently, any order for less than 100 shares is considered an odd lot. The estimated trading in odd lots has increased to nearly 5% of share volume and accounts for approximately 18% to 24% of trades in stocks.[9] Moreover, because many stocks are trading at a high dollar value, many investors are being unnecessarily deprived of the benefits of protections received by round lot orders. For example, Google Inc. stock is trading at well over $550 per share. An investor placing a 50 share GOOG order is thus investing over $27,500 and yet that investor's limit order is not protected from being traded through.

Odd lot status should be determined based on total order value, not share quantity. Therefore, we urge the Commission to amend applicable order protection rules to reclassify an odd lot to be an order for a value of less than a specified threshold, set somewhere between $500 and $3,000.

III. Execution Quality Transparency

Under Rule 606, broker-dealers that route customer orders in equity and option securities are required to make publicly available quarterly reports that, among other things, identify the venues to which certain customer orders are routed for execution. Broker-dealers also are required to disclose to customers, on request, the venues to which their individual orders were routed. The reports must also disclose possible conflicts of interest that may influence the broker-dealer's order-routing practices including payment for order flow or profit sharing arrangements.

The order routing statistics that retail brokers must publish under Rule 606 have provided important transparency for investors. Nonetheless, as markets and technology have evolved, we believe that the utility of Rule 606 disclosure for investors, and correspondingly, investor confidence in the retail marketplace, can be considerably improved in a number of respects. We thus support Chair White's call for increased disclosure of institutional order routing practices. More specifically, we recommend that the Commission take the following steps to give retail investors better information to make decisions and instill further confidence in the markets.

The Commission should require that retail brokers publicly report standardized execution quality metrics regarding the orders they route. As it stands, retail investors can learn the market center destinations primarily utilized by their brokers, and, by cross-referencing Rule 605 and 606 reports, basic information about the overall execution performance and payment for order flow of those market centers with respect to covered orders. Nonetheless, while retail investors

[9] *See* Herbert Lash, Odd-lot trading data starts being disseminated to public, Reuters (Dec. 9. 2013), available at http://www.reuters.com/article/2013/12/09/us-exchanges-oddlots-idUSBRE9B814820131209; *see also*, Odd Lot Rates in a Post-Transparency World, Data Highlight 2014-01 (Jan. 9, 2014), *available at* http://www.sec.gov/marketstructure/research/highlight-2014-01.html.

can request information regarding the routing of their orders, they have no means of comparing the quality of the executions obtained by competing retail brokers.

Disclosure of payment for order flow can also be enhanced by requiring that precise amounts of remuneration (hundredths of a cent) be disclosed, versus the current practice of providing numbers that are grossly rounded up in Rule 606 reports, and are typically preceded by the phrase "less than." Finally, as it stands, each Rule 606 report is only required to be published once and is typically replaced by the subsequent report. As a result, there is no readily available historic Rule 606 performance record. We urge the Commission to require that these reports remain published for at least 3 years in an easily accessible and downloadable format so that retail investors and the community which serves the interests of retail investors can track patterns and trends of historic performance.

IV. Market Resilience

A. Kill Switches

The Commission should require mandatory exchange kill switches, and ensure that exchanges have clear authority and responsibility to immediately stop activity that appears erroneous. The activity of a large number of market participants intersects on exchanges. Exchanges thus represent the logical place to stop significant erroneous trading activity and are best positioned to efficiently and consistently monitor activity across a very large number of market participants. Just like airports have air traffic control, rather than ceding all responsibility for air safety to airlines, exchanges should take responsibility to help ensure the safety of the markets, rather than ceding all market safety responsibility to exchange members.

Exchanges should play an important gatekeeper role by having effective controls to minimize the impact a member trading system malfunction may have on other members of the exchange, and the market as a whole. To cite one historic example, while NYSE detected erroneous trading activity by Knight Capital on August 1, 2012 within a few minutes, the erroneous activity continued for over 30 more minutes. It is reasonable to conclude that if NYSE had a kill switch in place, it may have halted Knight Capital's erroneous trading much sooner.[10]

After the August 22, 2013 interruption in the trading of Nasdaq listed securities, Chair White called for concrete measures to address market resilience, including implementing "kill switches" that would allow exchanges to shut down trading in the event of technological failures. While a number of exchanges have responded by implementing some kill switches, the kill

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[10] *See* NASDAQ OMX Introduces Kill Switch On Trading Platform, Two New Indexes; Forbes (Mar. 14, 2014), *available at* http://www.forbes.com/sites/greatspeculations/2014/03/14/nasdaq-omx-introduces-kill-switch-on-trading-platform-two-new-indexes/ (stating American stock exchanges agreed with regulatory authorities to implement kill switches to stop trading during times when information cannot be communicated properly, which is intended to avoid events such as NYSE's mix-up with Knight Capital Group in 2012).

switches that have been implemented to date suffer from weaknesses that have limited their effectiveness.

First, they only provide exchange members with the optional ability to set certain thresholds that may then trigger notifications, disable order entry, or cancel open orders. We should not rely on exchange members alone to protect the market from their mistakes. Therefore, exchanges still need to implement and administer their own mandatory kill switches, to serve as a backstop to limit the damage from severe problems that are not addressed by market participants' internal controls. We therefore urge the Commission to move forward with an affirmative market-wide requirement that exchanges implement their own robust exchange level kill switches designed to detect and minimize severe member trading system malfunctions.

Second, all of the existing kill switches add latency to the processing of orders. As a result, firms that voluntarily use these kill switches are disadvantaged by trading slower than many other market participants. Voluntary kill switches offered by exchanges should be implemented in a manner that introduces no additional latency.

Third, the existing kill switches are designed in substantially different ways at each exchange. This lack of uniformity significantly reduces the utility of the kill switches because it requires significant exchange member resources to properly configure and maintain overlapping and inconsistent kill switch parameters at each exchange. We urge the Commission to encourage or require the exchanges to work with members to develop a consensus around a kill switch framework.

To further these efforts, we recommend that exchanges implement kill switches with the specifications such as those described in Appendix A attached to this letter. We believe that implementation of the kill switch functionality described in Appendix A would entail modest implementation efforts and costs, and yield substantial benefits by making our markets materially safer.

B. The Dangers of "Anti-Disruptive Trading" Rules

Chair White recently explained that she "directed the staff to develop a recommendation to the Commission for an anti-disruptive trading rule." While we share Chair White's desire to prevent market instability, we urge the Commission to tread carefully when considering any such rule.

First, there are already extensive rules that are designed to prevent unwarranted market volatility. The Commission already has in place broad authority to police abusive trading based on anti-manipulation rules under Sections 9 and 10 of the Securities Exchange Act of 1934. Moreover, in recent years, the Commission adopted Rule 15c3-5, limit up/limit down rules, market wide circuit breaker rules, and banned stub quotes.[11] Chair White did not explain why this robust framework may not be adequately protecting market stability.

Second, to the extent that Chair White is suggesting that traders may not be permitted to enter into positions of a particular size or on a particular side of the market under certain conditions, such a restriction risks actually worsening volatility as market participants may race to get ahead of price moves before the opportunity to trade is closed.

Third, such a rule might discourage liquidity provision as market participants may reduce their willingness to enter positions if they may be restricted from exiting those positions when the market is moving quickly.

Fourth, to the extent any such rule would be based on subjective judgments of regulators made after-the-fact and with 20/20 hindsight, market participants would unfairly face the risk of being scapegoated for natural peaks and valleys in market supply and demand, which may discourage a broader range of legitimate market activity than intended.

Fifth, we are not aware of any studies or data that would warrant implementation of any such rule in the U.S. equity markets. We take some comfort from Chair White's commitment to pursue changes to equity market rules based only on a data-driven analysis, and look forward to any data that may justify the implementation of a new anti-disruptive trading rule, as well as any analysis of the potential unintended negative consequences of such a rule.

C. Exchange SRO Powers and Immunity

The special status of exchanges as SROs that have regulatory authority over their broker-dealer members combined with a history of limited liability have created a conflicted and weaker market structure than is optimal for fair and efficient markets. Exchanges face an irreconcilable conflict of interest in the performance of their duties as SROs. This conflict of interest in the dual role of regulator and competitor has led to inconsistencies in the manner in which the exchanges regulate their members. On one hand, the exchanges are bound by their fiduciary duty to maximize shareholder profits, while on the other hand, they are required to be fair and impartial regulators of the broker-dealers with whom they compete. Exchanges and broker-dealers have become direct competitors in many aspects of their businesses. For example, acute competition exists for order flow and order routing services. Yet, to a significant extent, exchanges are able to control the landscape on which they and broker-dealers compete for

[11] We support Chair White's call for ensuring that proprietary traders who are acting as dealers register with the Commission. Ensuring that such firms register would subject them to Rule 15c3-5 and would subject those firms to rigorous examination by the Commission and SROs.

business. Given that disparity, it is especially important that the Commission continue to review those instances involving increased competition in overlapping products and services.[12]

As SROs, exchanges are insulated from private liability for damages they might cause, based upon both a judicially created doctrine of "absolute immunity" and limitations on liability codified by their own rules. Limiting this immunity would increase the stakes for exchanges in connection with general culpability for operational failures. Facing liability for operational failures would give exchanges very strong financial incentives to invest heavily in steps to prevent or minimize the impact of operational failures. Thus, market resilience would be strengthened if exchange incentives were better aligned with those of other market participants.

Furthermore, as exchanges continue to pursue more broker-dealer like activities, the risk grows that exchanges will claim that more of those commercial ventures are entitled to immunity based upon some incidental regulatory aspect. As such, broker-dealers cannot fairly compete with an entity that offers the same services but does not face the same risk of liability. Therefore, we encourage the Commission to support legislative efforts to remove the SRO status of exchanges.[13]

D. Application of Regulation SCI to All ATSs

All ATSs should be subject to proposed Regulation SCI. Regulation SCI, as currently proposed, would impose substantial requirements on how exchanges and the largest ATSs design, develop, test, maintain, and monitor systems that are integral to operational integrity. ATSs, which perform the same exact market function as exchanges, should be subject to the same standards as exchanges with respect to the issues covered by Regulation SCI. Proposed Regulation SCI would only apply to the largest ATSs, and we see no reason for this size limitation.[14]

E. The Cost of Fragmentation

The adoption of Regulation NMS, and the foundational regulations that preceded it, have helped unleash an enormous degree of competition among market centers. In recent years, however, the balance between the costs that each new market center imposes on the market in terms of additional complexity and operational risk, may have started to outweigh the marginal

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[12] *See* Matthew Leising & Sam Mamudi, NYSE Owner Said to Buy Algo Technologies to Overhaul Market, Bloomberg (Apr. 16, 2014), *available at* http://www.bloomberg.com/news/2014-04-16/nyse-owner-said-to-buy-algo-technologies-to-modernize-exchange.html.

[13] Eliminating exchange liability immunity would warrant the adoption of regulatory capital requirements for exchanges because it would hurt public confidence to have a thinly capitalized exchange bankrupted by liability for an operational failure.

[14] Regulation ATS already has similar requirements, but they only apply to ATSs that meet very high volume thresholds (20% of ADV). No ATSs have met these thresholds and, thus, been subject to the requirements.

benefits of each new competing market center. The steps described above will help restrike this balance by requiring that market centers have sufficient resources and make sufficient investments in operational excellence. We expect that over time, this will reduce fragmentation by eliminating marginal market centers that rely on low cost of market entry and operation, externalization of the costs of catastrophic failure, and internalization of the profits of any success.

F. Improving Data Feed Transparency

We support Chair White's decision to urge FINRA and the exchanges to consider including a time stamp in the consolidated data feeds that indicates when a trading venue, for example, processed the display of an order or executed a trade. Such a time stamp should be precisely synchronized by use of a synchronized time server. Market participants would thereby be able to monitor the latency of those feeds and assess their sufficiency.

We also applaud Chair White's call for exchange rules that ensure disclosure regarding how and for what purpose exchanges are using market data feeds. The filings made by the exchanges last week provide much needed transparency that will allow broker-dealers and investors to assess the quality of an exchange's execution and routing services.[15]

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In conclusion, we believe that regulators, exchanges, and other market participants all have a critical role to play in improving equity market structure. We believe the recommendations in this letter serve as a template to further strengthen equity market structure. In this regard, we respectfully submit this letter for consideration by the Commission.

Please feel free to call the undersigned at (312) 395-2100 with any questions regarding these comments.

Respectfully,

John C. Nagel
Managing Director & Sr. Deputy General Counsel

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[15] *See, e.g.*, Proposed Rule to Establish a New Market Data Product Called the BATS One Feed, SR-BATS-2014-028 (July 14, 2014), *available at* http://cdn.batstrading.com/resources/regulation/rule_filings/pending/2014/SR-BATS-2014-028.pdf.

Enclosure

CC: Chair Mary Jo White
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Appendix A— Example Kill Switch Specifications

Kill Switch Thresholds

1. All thresholds should be set per individual session/port level.[16]

2. Each exchange should establish reasonable default threshold settings and maximum allowable settings.

3. At least the following thresholds should be available:

    a. Gross executed notional per day either on an absolute basis or as a percentage of total market volume

    b. Gross executed notional per rolling 5 minute period either on an absolute basis or as a percentage of total market volume. If this parameter is measured on an absolute basis, the default setting for time periods other than the first and last 30 minutes of trading could be a simple time-weighted proportion of the daily limit (i.e., 5/390 * daily limit), and for the first and last 30 minutes of trading, exchanges could add a reasonable increase to this limit to account for the normal "smile" pattern of trading volume, which tends to spike near the open and close of trading.[17]

    c. Gross notional orders outstanding

    d. Number of messages (orders plus cancels plus replaces) per second

    e. Number of identical messages (same symbol, side, and size) per second

4. Exceeding any of these thresholds should cause the port/session to be terminated, and all open orders for that port/session to be cancelled.

Pre-Order Entry Checks

1. Exchanges should make available the following pre-order entry checks. Failing any of these checks should result in rejection of the order.

    a. Maximum share size per order

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[16] Additional thresholds set per MPID and at the firm level would be helpful, but we understand that such measurements add to the implementation complexity.

[17] This "smile" pattern adjustment would not be needed if this parameter is measured as a percentage of market volume.

b. Maximum notional per order

c. Maximum percentage through local BBO

d. Market order check (allows member user to disable market orders)

Transparency

1. Member firms should have full, live transparency into all threshold settings.

2. To facilitate trend analysis by member firms, at the end of each day, the exchange should provide statistics to each member regarding any of their trigger events (i.e., frequency and type of threshold triggers) and their peak values on each threshold.

3. Member firms should be provided with a mechanism that allows them to dynamically adjust their thresholds to any value lower than the maximum threshold set by the exchange.

General Framework

1. To the extent an exchange offers any optional kill switch functionality or optional configurations, use of the optional functionality or configurations should have no relative impact on latency versus member firms who choose not to use optional functionality or configurations. Each order should be checked versus all controls for all members at all times to eliminate any perception that any optional checks add latency when enabled or configured.

2. Core functionality should be standardized across exchanges to ensure that member users can readily set their thresholds consistently across exchanges.