HEALTHY MARKETS
TRANSPARENCY & TRUST

October 13, 2016

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

Mr. Brent J. Fields, Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Re: CHX Liquidity Taking Access Delay (Release No. 34-78860; SR-CHX-2016-16)

Dear Mr. Fields:

The Healthy Markets Association appreciates the opportunity to offer comments to the Chicago Stock Exchange, Inc.'s proposed CHX Liquidity Taking Access Delay ("CHX Proposal").[1]

We are concerned that the Commission has not offered any concrete framework within which it can evaluate the CHX Proposal, as well as any similar future proposals. We urge the Commission to establish consistent, objective, policy-based criteria for evaluating speed bump proposals, and then apply those criteria to the instant proposal, as well as those that may likely arise in the future. We suspect that applying such a standard will result in some proposals, likely including the CHX Proposal, being denied.

As for the CHX Proposal itself, we have a number of questions and concerns with the CHX Proposal, and urge the Commission to proceed with extreme caution.

About Healthy Markets

The Healthy Markets Association is an investor-focused not-for-profit coalition working to educate market participants and promote data-driven reforms to market structure challenges. Our members, who range from a few billion to hundreds of billions of dollars in assets under management, have come together behind one basic principle: Informed investors and policymakers are essential for healthy capital markets.[2]

[1] Notice of Filing of Proposed Rule Change to Adopt the CHX Liquidity Taking Access Delay, Rel. No. 34-78860; File No. SR-CHX-2016-16, Sept. 16, 2016, available at https://www.sec.gov/rules/sro/chx/2016/34-78860.pdf.

[2] To learn more about Healthy Markets, or our Buyside and Working Group Members, please see our website at http://www.healthymarkets.org.

Develop a Consistent, Objective, Policy-Based Framework for Review of Proposals

The Exchange Act obligates the SEC to affirmatively determine that an exchange's overall rules are "designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, ..., to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest; and [] not designed to permit unfair discrimination between customers, issuers, brokers, or dealers."[3]

Earlier this year, as the SEC considered the IEX application, we warned that "[a]n unrestricted, sub-millisecond "de minimis" interpretation would leave the door open for a myriad of time delay and order type combinations, leading to excessive complexity, segmentation, and exchanges selectively advantaging certain groups of clients over others. It would also render the markets more susceptible to manipulation while simultaneously making them more difficult to police."[4]

At the time the Commission was considering the IEX application, it was abundantly clear that if the Commission approved IEX's application, other exchanges would likely soon follow suit with their own time delay proposals.[5] Nevertheless, when approving IEX, the Commission declined to provide guidance as to what types of delays could be problematic, and which would be more likely permitted.[6]

As the SEC Staff noted in its June 2016 Guidance allowing for sub-millisecond delays, the Guidance

> does not address whether any particular access delay would be approved by the Commission as consistent with the Commission's interpretation regarding automated quotation under Rule 600(b)(3) of Regulation NMS, or as being not unfairly discriminatory, not an inappropriate or unnecessary burden on competition, and otherwise consistent with the Act.[7]

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[3] Securities Exchange Act of 1934, Section 6.
[4] Letter from Healthy Markets Association to SEC, April 1, 2016, available at https://www.sec.gov/comments/s7-03-16/s70316-3.pdf.
[5] See Nicole Bullock, *SEC interpretation could lead to IEX copycats*, Financial Times, (Mar. 21, 2016).
[6] At the time, the Commission defined its issues narrowly to whether a 350 microsecond delay was "de minimis" so as to qualify as an automated quote. See Commission Interpretation Regarding Automated Quotations Under Regulation NMS, Rel. No. 34-78102; File No. S7-03-16, Jun. 17, 2016, available at https://docs.google.com/document/d/1Kw6-jL6tdKoxAeN2-RtlGV5X5_3mfWnYBUyBUBfpJGs/edit# ("Interpretive Guidance").
[7] Staff Guidance on Automated Quotations under Regulation NMS, SEC, June 17, 2016, available at https://www.sec.gov/divisions/marketreg/automated-quotations-under-regulation-nms.htm.

As a result, the Commission has left open the door for exchanges to propose delays that could be discriminatory, inhibit competition, or otherwise negatively impact investors and the markets. Put simply, the Commission has opted to consider each application de novo, with no standard against which to measure other than the vague language of the Exchange Act.

As we have said repeatedly, the SEC should determine whether, and under what circumstances, a delay promotes fair and efficient markets, and whether, and under what circumstances, a delay may protect investors. The following factors are essential to evaluating whether a delay could be consistent with the Exchange Act's obligations.

1. Any response time delays, whether intentional or not, are always less than one millisecond.
2. All intentional response time delays must be applied equally to all participants in their use of the market, and across all order types. Response time delays cannot be altered by any means, including fees. This ensures fair access as well as just and equitable principles of trade. Time delays should not apply to an exchange's ability to price orders on behalf of all participants (i.e. Pegging).
3. There are no intentional delays in sending data to the Securities Information Processor.
4. The purpose of each intentional response time delay is clearly stated; the delay is expressly intended to benefit long-term investors; and the delay is the simplest means of achieving the stated purpose.[8]

In addition, the SEC should consider the likely different impacts of deterministic or randomized delays on market liquidity, quote accessibility and market integrity.

Developing a consistent, objective, policy-based framework for evaluating proposals for time delays, such as the one outlined above, would ensure that the Commission's determinations are made on clear, objective criteria that are consistent with the agency's statutory obligations. Further, to the extent that the Commission's determinations are challenged in court, they would ensure the determinations are afforded the appropriate level of *Chevron* deference.

Specific Questions and Concerns with CHX Proposal

The CHX Proposal would create a new "speed bump," which would delay incoming "aggressive" orders for 350 microseconds. In its filing, CHX explained that market makers were being victimized by latency arbitrage, and that the CHX Proposal would protect them. CHX explained that it has recently lost significant liquidity and trading activity in SPY, which it believes may be linked to this rise in latency arbitrage.

We agree that market makers play an important role in the markets, and applaud CHX's desire to promote robust market making on its market. However, there are several significant policy and factual questions raised by this proposal that we believe should give the Commission pause.

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[8] See Letter from Healthy Markets Association to SEC, April 1, 2016, available at https://www.sec.gov/comments/s7-03-16/s70316-3.pdf.

Most importantly, we still do not feel confident that we understand what is really happening and the CHX Proposal itself casts significant doubts as to whether it would solve the identified concerns.

What is really happening?

According to its filing, the proposed time delay is to combat latency arbitrage that has been victimizing its market makers. The CHX Proposal filing reflects that it believes "each instance of the unusual messaging pattern is the end result of a race triggered by an away market event." There are two likely causes to the pattern that CHX has identified:

1. The CME may send out fills before market data dissemination;[9] or
2. A market participant is sweeping futures and equities at the same time.

The theory that CME dissemination lags cause the latency arbitrage problem arises from the interactions between CHX and CME. For years, it was generally understood that CME would send out fills before disseminating market data--often by milliseconds of difference. However, the exchange has argued that it addressed this issue.

At the same time, we understand that CHX has two datacenters: one in Secaucus, NJ and one in Cermak, IL. Some symbols trade in Illinois and others in New Jersey. According to CHX, the problem only seems to occur in the Illinois datacenter.

According to the articulated theory, a firm sits in the CME, gets a fill, and races the CME's market data dissemination to take out resting orders at CHX. If the delay between fill and market data dissemination is small enough, it likely gets washed out in the time it takes to travel from Illinois to New Jersey. However, because of the shorter time it takes to get to Illinois, the firm will beat the dissemination message, and win.

Unfortunately, this explanation leaves as many questions as answers. For example, why is it that CHX market share and resting shares in SPY have been reduced significantly, but the same effect does not seem to apply in QQQ or DIA (two ETFs that also have an equivalent futures contract)? Why would this issue only be in SPY and not other ETFs (like QQQ)? If the issue is happening in other symbols, which ones? Further, what changed in January 2016 for the SPY? It has been known for years that CME has had dissemination lags, and yet the latency arbitrage appears to have not happened to the same extent before.

Perhaps most interestingly, the data CHX provided in its filing shows this problem to be an acute issue related to SPY, not a systemic one related to the market in general. If this is the case, why is CHX imposing a market-wide speed bump to address an acute issue for one symbol, rather than systemic, issue?

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[9] See CME Softens High-Speed Traders' Edge, Wall St. Journal, May 13, 2014, available at http://www.wsj.com/articles/SB10001424052702303851804579559880884993894.

Given the lack of information about the root cause of the issues, and the seemingly disproportionate breadth of the proposed response, several observers have questioned the motivation for the proposal. Some theories are more generalized in nature. For example, is this just being done as a way to "open the door" to delays based on specific order types or other variable characteristics? This alone could facially add significant complexity to the markets, likely to the benefit of those best equipped to understand and take advantage of that complexity.

Another theory as to why CHX put forth the proposal is based on the fact that CHX shares SIP revenue with market makers. As pointed out by Hudson River Trading,[10] CHX had a significant discrepancy between its market share of quotes and executions, which it has not explained in the CHX Proposal. Further, CHX incentivizes higher quote market share.[11]

Collectively, these facts could exist in at least two, nearly opposite stories. In the first, the market maker is incentivized to quote, but a latency problem is preventing market participants from accessing those quotes. Unfortunately, the CHX Proposal includes no additional facts to support or rebut this scenario. Alternatively, one or more market makers could have had orders on CHX they never intended on trading, simply to collect the shared revenue. Again, the CHX Proposal includes no additional facts to support or rebut this scenario. The Commission should know which story is correct, or if some other scenario is occurring.

Will the delay resolve the identified latency arbitrage concerns?
According to the filing, the primary problem that CHX is trying to address is that market makers who are resting passive orders on the CHX are unable to cancel those orders (they receive a Too Late To Cancel [TLTC] error) during an externally triggered event.

The CHX Proposal lays out the results of a study in Appendix C that demonstrates what orders would have been impacted by the 350 microsecond delay during the period of May - July 2016. That study found that 32.24% of the TLTCs would have been successful cancellations if there was a 350 microsecond delay. Thus, while the delay would apparently reduce the TLTC scenarios a significant portion of the time, market makers with resting orders would likely still be unable to avoid being "picked off" as much as two-thirds of the time.

Thus, if all is taken at face value, then the unprecedented order-type-based time delay would facially create discrimination, apply much more broadly than the problem it is designed to address, and only reduce the problem by one-third. This seems less than ideal.

Additional Questions
In addition to the questions and concerns above, there are a number of questions that the SEC should also consider. For example, are there any concerns with the delay being implemented by

[10] Letter from Hudson River Trading to SEC, at 4, Oct. 6, 2016, available at https://www.sec.gov/comments/sr-chx-2016-16/chx201616-3.pdf.
[11] CME, Market Data Revenue Sharing, available at http://www.chx.com/chxshare/market-data-revenue-sharing.html (last viewed Oct. 13, 2016).

software as opposed to hardware? What happens in periods of high volume? Would the software processing times increase? Would that increase the delays by some unknown time period? How would CHX ensure that the delay doesn't vary under different conditions? Again, the Commission should have a detailed understanding of these issues.

Conclusion

Before the Commission unintentionally enables abuses or damages the markets by approving ill-advised time delay proposals, we again urge the Commission to establish an objective, policy-based framework with which to evaluate all exchange speed bump proposals. Further, we believe that if the Commission does not fully understand why a proposal is being sought or how it will work, it should not approve the application.

Given the lack of information in the CHX Proposal, as well as the somewhat concerning characteristics of it, we urge the Commission to proceed with extreme caution.

Should you have any questions or wish to discuss our comments, please do not hesitate to contact me at [redacted]. Thank you for your consideration.

Sincerely,

Tyler Gellasch
Executive Director
Healthy Markets Association