HEALTHY MARKETS
TRANSPARENCY & TRUST

March 17, 2017

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

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

Re: File No. SR-CHX-2017-04

Dear Mr. Fields:

The Healthy Markets Association appreciates the opportunity to offer comments to the Notice of Filing of Proposed Rule Change to Adopt the CHX Liquidity Enhancing Access Delay.[1]

We are concerned that the Commission still has not offered any concrete framework within which it can evaluate delay proposals, such as this one. The need for such a framework, which was high when the SEC first considered the IEX Exchange Application last year, is even more pressing now that the Commission is actively considering both this Revised CHX Proposal and the NYSE Mkt Proposal.[2] As we have before, we urge the Commission to establish consistent, objective, policy-based criteria for evaluating speed bump proposals, and then apply those criteria to both of the pending proposals, as well as those that may likely arise in the future.[3]

As for the Revised CHX Proposal itself, it lays out an entirely new regulatory framework -- the stated intention of which is to enable key market participants to render their quotes inaccessible.[4] This is a very dangerous game, which would likely have profound unintended consequences. We urge the Commission to proceed extremely cautiously.

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

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[1] Notice of Filing of Proposed Rule Change to Adopt the CHX Liquidity Enhancing Access Delay, Feb. 10, 2017, *available at*

management, have come together behind one basic principle: Informed investors and policymakers are essential for healthy capital markets.[5]

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

Over the course of less than a year, the Commission has been asked to pass judgment on no less than four time delay proposals.[6] Unfortunately, the Commission appears to be reviewing each of the exchange time delay proposals *de novo*, without any clear or consistent framework against which to compare.

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."[7]

Last 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 participants over others. It would also render the markets more susceptible to manipulation while simultaneously making them more difficult to police."[8]

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.[9] 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.[10]

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

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

[6] The initial CHX Proposal was ultimately withdrawn before significant Commission action was taken, and a Revised CHX Proposal has been submitted for evaluation.

[7] Securities Exchange Act of 1934, Section 6.

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

[9] See Nicole Bullock, *SEC interpretation could lead to IEX copycats*, Financial Times, (Mar. 21, 2016).

[10] 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").

> discriminatory, not an inappropriate or unnecessary burden on competition, and otherwise consistent with the Act.[11]

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 without any standard against which to measure other than the vague language of the Exchange Act. Now, the Commission is actively facing two, very different, time delay proposals.

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. We believe the following factors would aid the evaluation of 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.[12]

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.

Lastly, we fear that, without a framework, the Commission's determinations with respect to any time delay proposal, including both the NYSE Mkt Proposal and the Revised CHX Proposal, could be viewed as arbitrary or capricious. Thus, to the extent that the Commission's determinations are challenged in court, a consistent framework against which the proposals could be compared would help ensure the determinations are afforded the appropriate level of *Chevron* deference.

Specific Questions and Concerns with Revised CHX Proposal

The Commission is obligated to require any exchange seeking to change its rules to explain why the exchange is doing so. Here, the CHX, unlike the NYSE Mkt Proposal,[13] makes it clear what it

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[11] 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.
[12] See Letter from Healthy Markets Association to SEC, April 1, 2016, *available at* https://www.sec.gov/comments/s7-03-16/s70316-3.pdf.
[13] See Letter from Healthy Markets Association to SEC, Mar. 10, 2017, *available at* https://www.sec.gov/comments/sr-nysemkt-2017-05/nysemkt201705-1628780-137420.pdf

intends to address: latency arbitrage against its market makers. The CHX's first and second proposals take great pains to explain how its volume fell off when market makers withdrew from its market after being subject to what it argues is latency arbitrage by other market participants.[14] To address this problem, the Revised CHX Proposal would subject its entire market to a 350 microsecond delay, except for some orders submitted by firms that qualify as "LEAD Market Makers."

The US equities markets have a long history of affording certain privileges to market makers and other favored participants, in return for those participants performing certain critical functions to improve the integrity and efficiency of the markets.[15] However, the Exchange Act demands that any such discrimination must be carefully considered and justified.

The Revised CHX Proposal would venture into unchartered discriminatory waters, and offers little explanation or justification. For example, is it appropriate for time delays to be a mechanism of discrimination at all? If so, under what circumstances? Given the significant risk for abuses, including the deterioration of market quality that could accompany a significant uptick in quote inaccessibility, what are the appropriate protections to prevent that?

The Revised CHX Proposal appears to recognize these concerns, and accordingly has proposed a new set of "obligations" for its LEAD Market Makers. What is the impact of those obligations on the market and on the overall markets? What is the burden of the offsetting obligation on the LEAD Market Maker? The proposal sets forth some obligations, but includes no data or information as to why those particular obligations were selected.

Should the market maker obligations be linked to volume or time or both? For example, should a market maker be required to be at or inside the NBBO for X% of the trading day as measured by time or by volume? Or what should the percentages be? Should it be 10%, 50% or 99.99%?[16] What's the justification of the selection? What about percentages of the time making a two sided market? What about including expectations for executions? What modeling or analysis has been performed to support the selections? What would the impact of the various selections be on the percentage of quotes that would be inaccessible for market participants? What impact would this have on overall market quality?

Healthy Markets is not convinced that a benefit for market makers should be the ability to withdraw resting orders that they know are likely to be executed, rendering those quotes inaccessible. Put simply, we are not yet convinced that any market participant should be afforded the special benefit contemplated by this proposal. Instead of improving the provision

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[14] As we explained in our October 13, 2016 letter, this explanation leaves a lot of remaining questions. Furthermore, we question whether the CHX would have ever enjoyed the volume it had previously, were the identified arbitrage opportunity not being exploited. Based on the information provided, it is also possible that prior to its market makers withdrawing from its market, the CHX experienced more trading volume expressly because of the trading opportunity that CHX is now trying to eliminate.

[15] We also note that firms have in the past abused these privileged positions.

[16] In Appendix A to this letter, we outline our own proposal for a new cross market "NMS Market Maker" standard, which includes different expectations for different tiers of securities. While our proposed standards are based on existing obligations, current practices, and our own analysis, we also recognize that our proposal is, to some degree, arbitrary. We would ideally propose the standards be developed after a more rigorous analysis of the potential impact of such a selection (i.e., studies showing the changes in provision of liquidity, costs, and market quality).

of liquidity, we suspect that it would lead directly to deterioration of accessibility of quotes and overall market quality.

This concern is not just theoretical. While not in the U.S. markets, a recent study of the impact of a similarly discriminatory time delay implemented by TSX Alpha in Canada suggests that the ramifications may be significant.[17] The only counterbalance to these negative impacts could be tying such a privilege to robust and rigorous affirmative obligations. And even that may not be enough to protect the markets.

However, we also recognize that market makers play a critical role in the markets, and may, at times, be subject to different privileges and obligations than other market participants. We firmly believe that cross-market market making obligations and standards would greatly assist market efficiency and improve the consistent provision of liquidity.

If the SEC determines to look at what it means to be a bona fide market maker, we would urge the Commission to do so as part of a measured, data-driven analysis--and not within the context of the instant proposal. If the Commission were to undertake that effort, we urge it to consider the attached Appendix A, which is a presentation Healthy Markets made before the Market Quality Subcommittee of the SEC's Equity Market Structure Advisory Committee regarding recommendations that the committee could make regarding broad Market Making Standards.[18]

In addition to these threshold concerns, we also have numerous other significant questions and concerns with the Revised CHX Proposal. For example, as with the NYSE Mkt Proposal, we do not know why the delay is 350 microseconds. The IEX Proposal was deliberately set at 350 microseconds to be fractionally longer than the delay associated with signals traveling the distance to Mahwah, New Jersey. In other words, the time delay was disclosed to be selected for geographic reasons. Why did the Revised CHX Proposal select that same time period? There was nothing in the SEC's approval of IEX or related guidance that so limited future applications.

Similarly, there are also a number of questions that the SEC should also consider. For example, are there any concerns with the delay being implemented by 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?

Would those periods not impact the software-based delay? The exchange essentially saying that it would "do its best" to make the delay a consistent 350 microseconds seems inadequate, without data or procedures to support the proposition that those circumstances would be extremely rare and otherwise *de minimis*.

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[17] Haoming Chen, Sean Foley, Michael Goldstein, and Thomas Ruf, *The Value of a Millisecond: Harnessing Information in Fast, Fragmented Markets*, Jan. 18, 2017, *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2860359.

[18] Christopher Nagy presenation to the Market Quality Subcommittee of the Equity Market Structure Advisory Committee on April 8, 2016 *available at* https://www.sec.gov/spotlight/equity-market-structure/emsac-market-quality-subcommittee-040816.htm. Notably, this proposal excludes exchange traded products.

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.

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

Appendix A

HEALTHY MARKETS
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Market Making Standards

Discussion Draft Proposal

April 7, 2016

HEALTHYMARKETS.ORG @HEALTHYMKTS

ABOUT HEALTHY MARKETS ASSOCIATION

Healthy Markets is an investor-focused not-for-profit coalition looking 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. Healthy Markets can be found online at healthymarkets.org.

INTRODUCTION

Market makers serve an important role in providing liquidity to securities and contribute to the overall health and efficiency of the capital markets. As the US markets have evolved from a central liquidity framework to the current fragmented system of multiple exchanges and Alternative Trading Systems, market making obligations have not kept pace with this modern framework.

Currently, market making standards in the securities markets are generally left to the market venues to develop. A firm designated as a "market maker" on one venue may not be designated as a market maker on another. Similarly, the obligations and benefits of being a "market maker" vary from venue to venue. The current framework results in inconsistent expectations for market participants and regulators. It has also arguably helped concentrate liquidity in the largest, most-liquid securities at the expense of less-liquid securities.

The Securities and Exchange Commission should consider adopting a new form of standards that could apply across market venues and asset classes. While not the primary focus of this proposal, we recommend that the Commission work with other regulators, most notably, the Commodity Futures Trading Commission, to develop cross-product standards that may more appropriately integrate different, interrelated asset classes overseen by different regulators. The SEC should consider this approach for all asset classes, but perhaps the first asset class to be covered should be NMS stocks.

POTENTIAL "NMS MARKET MAKER" STANDARD

The SEC should consider adopting a new federal standard for NMS Market Makers which could require liquidity provisioning across various baskets of securities. In addition to requirements that encompass a breadth of securities covered, a standard could include the following requirements:

- Best Price Obligation - publish continuous, two-sided quotations "at or near the best price" during regular market hours for a specified percentage of the time during a trading day;
- Minimum Size - publish two-sided quotations at a specified minimum size (e.g., 500 shares) based on the price and ADV of the stock;
- Depth Obligations - provide depth quotations 3 to 5 levels below the Best Price Obligation at a specified minimum size;
- Spread Obligation- maintain minimum two-sided quoted spread requirements fostering a tight and liquid market;
- Best Price Obligation – maintain a minimum level of participation at the NBBO;
- Passive Liquidity Provision – provide an equal or greater amount of passive liquidity;

- Basket Obligation - meet these market making standards in a minimum number of securities. For example, in equities, the baskets could be small cap, mid-cap and large cap stocks;
- Capital Requirements - maintain higher capital requirements than other broker dealers based on their quoting obligations in addition to their existing position-based capital requirements.

Each of the above elements would aid in defining who is an NMS Market Maker and who is not and also enhance the provisioning of robust liquidity, while ensuring the financial stability of the markets. Based upon the proposed requirements, Healthy Markets preliminarily recommends the following NMS Market Maker Standards:

Metric	Tier-1 (Large Cap) (250 mm+ adv)	Tier-2 (Mid-Cap) (100mm – 250mm adv)	Tier-3 (Small Cap) (0-100mm adv)
Continuous two-sided Quotes	99%	98%	95%
Quote Size	*500*	*200*	*100*
Depth Obligation	*5 levels*	*3 levels*	*3 levels*
Quote Spread	2%	5%	10%
Best Price Obligation - NBBO participation	15%	10%	5%
Passive/Active	50/50	50/50	50/50
Basket Minimum	50	100	200
Capital Requirements	Supplement the Net Capital requirements for broker-dealers with additional capital and liquid asset requirements sufficient to protect against market disruptions. Such requirements may reflect measures of transaction volume and average outstanding orders.		

These standards, if adopted by the SEC, could supplant existing exchange based standards and could also pave the way for incentives to further promote liquidity in the market-place. These standards could be validated on a regular basis for compliance in-house or through a third party firm. Oversight and compliance with the standards may appropriately rest primarily with FINRA as part of their TMMS examinations or the development of reporting directly to FINRA.

ROLE OF INCENTIVES

On each venue, being designated as a "market maker" or a functional equivalent typically carries with it some collection of benefits. These incentives may play a critical role in promoting genuine market making activity, to the benefit of long term investors. The SEC should carefully consider the different incentives across market venues to ensure that these incentives serve to promote more fair and efficient markets. To the extent possible, these incentives should be standardized.

As guiding principles, incentives that promote fairness and efficient markets should be permitted, while those that create unnecessary complexity or undermine the integrity of the markets should be mitigated or prohibited.

Traditionally, market makers have been incentivized with various advantages over other market participants, such as with place, time and informational advantages or simply financial incentives such as liquidity rebates. One approach Healthy Markets believes merits further consideration is whether latency advantages could only be available to firms qualifying as National Market System Market Makers.

Other incentives that have been discussed by some include lower fees (such as a reduced Section 31 fee) or preferential tax treatment. We do not necessarily support these incentives, however.

CONCLUSION

The discrepancies between market making standards across execution venues provides confusion for market participants and regulators, while also creating an array of inconsistent costs and benefits for firms providing liquidity on those venues. To reduce complexity and promote more fair and efficient markets, we recommend considering approaches to standardize expectations for "market makers" across asset classes, beginning with NMS Stocks.

BACKGROUND: EXISTING MARKET MAKER REQUIREMENTS

Exchange Requirements	Quoting Requirement	Size Requirement	Spread Requirement	NBBO Requirement	Trading Requirement	Basket Obligation	Capital Obligation
IEX	Continuous two-sided quotes	Average order size relative to market/venue	none	Percent of Quote at NBBO	Percent of Traded Volume as Displayed Liquidity Added	none	none
Nasdaq MQP	Within min spread 90%	2500 shares each side	Within 2% of NBBO for 90% of the day	25%	none	none	none
Nadsaq OMX Helsinki	Continuous two-sided quotes: 85%	4000 Euros	4%	none	none	none	none
NYSE DMM	Continuous two-sided quotes	none	"Designated Percentage" shall be 8% for S&P500/Russell 2k, 28% for others > $1, and 30% for others < $1, except that between 9:30 a.m. and 9:45 a.m. and between 3:35 p.m. and the close of trading, when Rule 80C is not in effect, the Designated Percentage shall be 20% for S&P500/Russell 2k, 28% for others > $1, and 30% for others < $1.	Basic: 15% for symbols <1MM shares; 10% for symbols >1MM shares. "More Active": 15% for symbols >1MM shares. Quoting 20%+ in <1MM share symbols gives DMM all CTA Tape Rev.	15% total intraday adding liquidity is threshold for pricing	none	Net Liquid Assets equal to the greater of (i) $1,000,000 or (ii) $125,000 for every 0.1% of Exchange Transaction Dollar Volume in each of the DMM unit's registered securities. The portion of a DMM unit's Net Liquid Assets that is derived from Excess Net Capital shall at all times equal or exceed 40% of a DMM unit's total Net Liquid Assets requirement.
NYSE SLP	Continuous two-sided quotes	none	"Designated Percentage" shall be 8% for S&P500/Russell 2k, 28% for others > $1, and 30% for others < $1, except that between 9:30 a.m. and 9:45 a.m. and between 3:35 p.m. and the close of trading, when Rule 80C is not in effect, the Designated Percentage shall be 20% for S&P500/Russell 2k, 28% for others > $1, and 30% for others < $1.	10%	Adds liquidity of an average daily volume ("ADV") of more than a specified percentage of consolidated average daily volume ("CADV") in all NYSE-listed securities. 0.15% - >0.5% results in tier 1 - 3.	none	Maintain minimum net capital in accordance with the provisions of Rule 15c3-1 under the Securities Exchange Act of 1934
BATS CLP	One sided	500 Round Lot Only	CLPs must be quoting at least one round lot at or within 1.2% of their offer (bid) to have a winning-offer SET (winning-bid SET).	1.20%	The three CLPs with the greatest aggregate size at the NBB (or NBO) for a security will win the SET. The CLP with the most aggregate size will win first place and be awarded three credits; second place will receive two credits, and third place will receive one credit	none	none
Aequitas	Continuous two-sided quotes: 95%	3 Board Lots	Within 3% of last-sale price	10%			Existing IIROC capital requirements for dealer-members (minimum capital of $250,000)
TSX	Continuous two-sided quotes within the spread goal	Minimum guaranteed fill	Agreed-upon spread goal with Exchange	none	none	none	Existing IIROC capital requirements for dealer-members (minimum capital of $250,000)

BACKGROUND: SELECTED RESOURCES

- Government office for Science, Minimum obligations of market makers: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/289034/12-1069-eia8-minimum-obligations-of-market-makers.pdf
- BATS Exchange Rulebook: http://cdn.batstrading.com/resources/regulation/rule_book/BATS_Exchange_Rulebook.pdf
- Nasdaq Market Quality Program: http://www.nasdaqtrader.com/Trader.aspx?id=MQP
- NYSE Rules: http://nyserules.nyse.com/NYSE/Rules/
- Nasdaq OMX Guidelines for Market Making: http://www.nasdaqomx.com/digitalAssets/86/86486_guidelinesformarketmaking1july2013.pdf
- Aequitas NEO Exchange DMM program: https://aequitasneoexchange.com/en/trading/designated-market-makers/dmm-obligations-benefits/
- Toronto Stock Exchange Trading Rule amendments related to market making: https://www.osc.gov.on.ca/en/Marketplaces_xxr-tse_20110916_rfc-market-making.htm
- TMX Market maker responsibilities: http://apps.tmx.com/en/trading/products_services/market_system.html
- London Stock Exchange Derivatives market making obligations: https://www.lseg.com/sites/default/files/content/documents/LSEDM%20-%20Market%20Making%20Obligations%203.3_1.pdf
- The Specialists participation in quoted prices (Panayides): http://depot.som.yale.edu/icf/papers/fileuploads/2384/original/04-05.pdf
- Providing Liquidity in a High-Frequency Wolrd: Trading Obligations and Privileges of Market Makers (Dolgopolov): http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2032134
- Linking the Securities Market Structure and Capital Formation: Incentives for Market Makers (Dolgopolov): http://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=1459&context=jbl
- Liquidity Enhancement for Small Public Companies Act, H.R. 6127 https://www.congress.gov/bill/112th-congress/house-bill/6127/text
- Release No. 34-69195; File No. SR-NASDAQ-2012-137, Approval to Establish a Market Quality Program https://www.sec.gov/rules/sro/nasdaq/2013/34-69195.pdf