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April 14, 2016

Brent J. Fields
Secretary
U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-0609

Re: Release No. **34-75925**; File No. 10-222
Investors' Exchange, LLC; Notice of Filing of Application, as Amended, for Registration as a National Securities Exchange under Section 6 of the Securities Exchange Act of 1934

Release No. **34-77406**; File No. 10-222
Investors' Exchange LLC; Notice of Filing of Amendment Nos. 2, 3, and 4 to, and Order Instituting Proceedings to Determine Whether to Grant or Deny, and Notice of Designation of Longer Period for Commission Action on Proceedings to Determine Whether to Grant or Deny, an Application for Registration as a National Securities Exchange Under Section 6 of the Securities Exchange Act of 1934, as Modified by Amendment Nos. 1, 2, 3, and 4 Thereto

Release No. **34-77407**; File No. S7-03-16
Notice of Proposed Commission Interpretation Regarding Automated Quotations Under Regulation NMS

Dear Mr. Fields:

The FIA Principal Traders Group ("FIA PTG")[1] appreciates the opportunity to comment on the Securities and Exchange Commission's ("Commission") Notice of Proposed

[1] FIA PTG is an association of 25 firms that trade their own capital on exchanges in futures, options and equities markets worldwide. FIA PTG members engage in manual, automated and hybrid methods of trading, and they are active in a wide variety of asset classes, including equities, fixed income, foreign exchange and commodities. FIA PTG member firms serve as a critical source of liquidity, allowing those who use the markets, including individual investors, to manage their risks and invest effectively. The presence of competitive professional traders contributing to price discovery and the provision of liquidity is a hallmark of well-functioning markets. FIA PTG advocates for open access to markets, transparency and data-driven policy and has previously made recommendations about a variety of equity

Commission Interpretation Regarding Automated Quotations Under Regulation NMS (the "Proposed Interpretation");[2] and to further comment on Investors' Exchange, LLC's ("IEX") amended application for registration as a national securities exchange ("Application").[3]

We are concerned that the Proposed Interpretation would lead to multiple exchanges implementing different kinds of delays. Combined with the Regulation NMS ("Reg NMS") requirement to route orders to the apparent best price, this risks turning the national market system into a hall of mirrors where it's impossible to know which prices are real and which are latent reflections.

Background

In our first letter to the Commission on the IEX Application, dated November 6, 2015,[4] we expressed concerns about: (i) IEX's proposal to give protected status to its quotations despite their being subject to an intentional delay; (ii) the introduction of pegged order types with a speed advantage over other order types; and (iii) IEX's affiliated broker-dealer not being subject to the access delay in the same way as other non-affiliated broker-dealers.[5] In our second letter to the Commission, dated March 3, 2016,[6] we noted that in an amendment to its Application,[7] IEX had apparently addressed the third concern; however, we reiterated that the first and second concerns remained problematic.[8] Numerous other market participants expressed similar concerns.

Following further submissions by IEX,[9] the Commission instituted proceedings to consider whether to grant or deny IEX's application and designated a longer period for Commission action to accommodate those proceedings (the "IEX Release").[10] In

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market structure issues, including Regulation NMS (*See* https://ptg.fia.org/keywords/equity-market-structure).

[2] *See* Securities Exchange Act Release No. 77407 (Mar. 18, 2016), 81 FR 15660 (Mar. 24, 2016).

[3] *See* Securities Exchange Act Release No. 75925 (Sept. 15, 2015), 80 FR 57261 (Sept. 22, 2015).

[4] *See* Letter from Mary Ann Burns, Chief Operating Officer, FIA to Brett J. Fields, Secretary, Commission, dated November 6, 2015.

[5] *See* Letter from Sophia Lee, General Counsel, IEX to Brett J. Fields, Secretary, Commission, dated February 29, 2016 ("IEX Amendment No. 2").

[6] *See* Letter from Mary Ann Burns, Chief Operating Officer, FIA to Brett J. Fields, Secretary, Commission, dated March 3, 2016 ("FIA PTG Second Letter").

[7] *See* IEX Amendment No. 2, *supra* note 5, at 1.

[8] *See* FIA PTG Second Letter, *supra* note 6, at 2 ("IEX has not, however, done anything to address FIA PTG's other two concerns. Specifically, IEX's intentional access delay still does not comply with Rule 611 of Regulation NMS, and as such, these purposely delayed quotes should not be protected. In addition, as described in our previous letter, IEX should not be permitted to give hidden pegged orders a speed advantage over other order types, including displayed quotations."). *Id*.

[9] *See* Letters from Sophia Lee, General Counsel, IEX, to Brent J. Fields, Secretary, Commission, dated March 4, 2016 and March 7, 2016.

[10] *See* Securities Exchange Act Release No. 77406 (Mar. 18, 2016), 81 FR 15765 (Mar. 24, 2016).

addition, the Commission also released its Proposed Interpretation, [11] which re-thinks an important aspect of Reg NMS.

When the Commission adopted Reg NMS, it stated that "to be protected [under Rule 611] a quotation must be immediately and automatically accessible." [12] The Commission further explained that "[t]he term 'immediate' precludes any coding of automated systems or other type of intentional device that would delay the action taken with respect to a quotation."[13]

In the Proposed Interpretation, the Commission stated that it "preliminarily believes that, in the current market, delays of less than a millisecond in quotation response times may be at a *de minimis* level that would not impair a market participant's ability to access a quote, consistent with the goals of Rule 611 and because such delays are within the geographic and technological latencies experienced by market participants today." [14] Such an interpretation would presumably allow the Commission to approve the IEX Application with protected quotes despite the intentional delays designed into the trading platform.

<u>Summary</u>

We believe that the Proposed Interpretation would have multiple negative consequences for the equity markets. Accordingly, FIA PTG recommends against the Proposed Interpretation for several reasons. While one millisecond is very short compared to human response times, it is excessively long when compared to computer response times. For comparison, modern exchange matching engines process orders in considerably less than 1/20 of that time, and geographic latencies between the major exchange data centers in New Jersey are generally less than 1/4 of that time.

Importantly, the Commission's Proposed Interpretation fails to recognize the important distinction between geographic delays, which apply equally to all information communicated between remote locations, and selective delays like those proposed by IEX. Such selective delays, even very short ones, open the door for behaviors that are fundamentally inconsistent with Reg NMS.

As such, and as we discuss in more detail below, delays of up to one millisecond would materially impair market participants' abilities to access quotes and would raise other

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[11] *See* Proposed Interpretation, *supra* note 2.

[12] *See* Securities Exchange Act Release No. 51808 (Jun. 9, 2005), 70 FR 37496, 37504 (Jun. 29, 2005) ("Regulation NMS Adopting Release").

[13] Regulation NMS Adopting Release, *supra* note 14, at 37534. Prohibiting intentional delays was part of a line of actions intended to improve fairness and transparency in markets. There has been a long history of market participants slowing down their trade reporting in order to give advantages to privileged insiders and the Commission rightfully has deemed such intentional delays to be against the public interest.

[14] Proposed Interpretation, *supra* note 2 at 18.

concerns about efficient compliance with Reg NMS. Moreover, the Proposed Interpretation could facilitate market manipulation, harm the resiliency of the NMS system, and multiply the unnecessary complexity in our markets. In addition to impairing market quality on a daily basis, the Proposed Interpretation could increase systemic risk, particularly during times of market stress.

As we have noted in prior comments to the Commission, FIA PTG is in favor of modernizing Reg NMS and has recommended the elimination of the trade through rule (Rule 611) and the requirement to avoid displaying locked and crossed markets (Rule 610(d).[15] However, reforms such as these should be considered as part of a comprehensive market structure review, and not on an ad hoc basis. Given the likelihood and magnitude of unintended consequences, we believe that any significant change to the application of Reg NMS, such as the Proposed Interpretation, should be subject to a more robust discussion and opportunity for meaningful public comment than is possible in a 21-day comment period.

Discussion

First, as described above, delays of less than one millisecond would impact a market participant's ability to access a quote. Again, one millisecond is a very long time for a computer, and the vast majority of trading in the US equity markets from all classes of market participants is managed, to some degree, by computers, whether automated trading strategies or smart order routers or regulatorily mandated linkages among venues. The Proposed Interpretation would make Reg NMS requirements around order protection and locked and crossed markets essentially unworkable.

If intentionally delayed quotes are deemed protected, market participants would be required to route orders to a delayed exchange whenever that exchange displays the best price – even when such price is stale and no longer accessible. This would lead to lower fill rates and inferior executions. For example, as noted by one commentator, if all the exchanges (delayed and non-delayed) have a bid-offer of \$10.00/\$10.02 (the National Best Bid and Offer or the "NBBO") and the market moves to \$9.99/\$10.01, all of the non-delayed exchanges would immediately change their quotes.[16] For up to a millisecond, however, the delayed exchange would still display a bid-offer of \$10.00/\$10.02. The \$10.00 bid on the delayed exchange may disappear after the delay, but if a marketable sell order comes in, the order would be required to be sent to the delayed exchange, since the national best bid is still displayed there. The order would be delayed and by the time the cancel message is returned to the sender (possibly passing through an additional intentional delay, as proposed by IEX) the order may no longer be

[15] *See* FIA PTG, *Simplifying U.S. Equity Market Structure* (Jan. 28, 2015), *at* https://ptg.fia.org/sites/default/files/content_attachments/FIA%20PTG%20Position%20-%20Simplifying%20US%20Equity%20Market%20Structure.pdf

[16] *See* Matt Levine, *The 'Flash Boys' Exchange is Growing Up*, Bloomberg View (Sept. 16, 2015), *at* http://www.bloombergview.com/articles/2015-09-16/the-flash-boys-exchange-is-growing-up.

able to be executed at even the previous best bid of $9.99. As such, the intentional access delay would harm market transparency and degrade the value of the NBBO. We expect the Proposed Interpretation to lead directly to lower fill rates as venues refuse to fill orders when it appears that a delayed venue has a better price based on intentionally stale information. Lower fill rates harm market quality by leading to wider effective spreads, a transaction cost passed on to investors.

Similarly, due to the prohibition on displaying locked and crossed markets in Rule 610(d), intentionally delayed exchanges would effectively freeze the entire market for up to a millisecond in many cases if intentionally delayed quotes were deemed to be protected. For example, if the NBBO including a delayed exchange is $10.00/$10.01 and the market is in the process of moving to $9.99/$10.00, other exchanges could not move to the new price without locking the probably stale intentionally delayed quote. We believe that intentional delays would also result in the appearance of more locked and crossed markets as firms that send intermarket sweep orders ("ISOs")[17] to intentionally delayed exchanges would display quotes on other exchanges that appear to lock or cross the intentionally delayed quotes. Many firms do not use ISOs and would thus have to wait up to a millisecond for the intentionally delayed quote to move (or not). This could be particularly problematic during periods of high volatility or during sharp market moves (such as May 6, 2010 or August 24, 2015) in which rapid repetition of such freezing behavior across multiple instruments could be expected to interfere with market stability. The Proposed Interpretation could thus increase systemic risk, particularly during times of market stress.[18]

Second, while the Commission asserts that the delays proposed by IEX are "effectively equivalent to the communications latency between venues that are 38 miles apart"[19] the Commission overlooks the selective nature of such delays. Unlike geographic delays which are effectively governed by the laws of physics, IEX has proposed delays that apply to some communications but not others. In particular, IEX does not propose to delay market data coming in from other exchanges that is used to peg or adjust prices of hidden orders resting on IEX. The Commission further explains that it "does not believe that … naturally occurring response time latencies resulting from geography are

[17] Regulation NMS Rule 600(b)(30) defines an intermarket sweep order as one or more limit orders routed simultaneously to execute against the full displayed size of all protected quotes at a price level.

[18] *See*, e.g., Dr. Holly Bell, "Disruption is Not Innovation", John Lothian News (April 9, 2016), at http://www.johnlothiannews.com/2016/04/disruption-not-innovation/#.Vw6IAWOMAkh ("Imagine if all exchanges implemented irregular price reporting delays. … The chances of stale quotes would be high and that would wreak havoc on our markets. We have seen in the past that pricing problems and stale market indices lead to chaotic markets and impaired, disorderly trading. This happened on Black Monday in 1987 and, even though this occurred in a pre-NMS market environment, it underscores the necessity of having actual market prices available immediately – or risk liquidity evaporating. … I am concerned that adding intentional price irregularities and moving away from nearer real-time consensus pricing will only increase the probability of a market-disrupting event during periods of market stress.").

[19] Proposed Interpretation, *supra* note 2 *at* 19.

inconsistent with the purposes of Rule 611."[20] While we note that such geographic delays do, in fact, complicate the markets in the presence of Reg NMS, we agree that they are inescapable. Nonetheless, this interpretation should not be extended to intentional delays that are selective and therefore not equivalent to geographic latencies.

Third, as noted in the Proposed Interpretation, "the purpose of the Order Protection Rule was to incentivize greater use of displayed limit orders, which contribute to price discovery and market liquidity."[21] Unfortunately, we believe that the Proposed Interpretation would accomplish exactly the opposite. The intentional, selective delays proposed by IEX would disadvantage displayed limit orders in favor of dark liquidity. It is only the pegged orders hidden on IEX that would have the benefit of non-delayed market data. This would harm price discovery and market liquidity contrary to the objectives of Reg NMS.

Fourth, the Proposed Interpretation, with hard-coded values, would not be future-proof. One millisecond is slow by today's computer standards, and will be even slower (relatively speaking) in the future.[22]

Finally, while we believe that it would be a mistake to allow even a single exchange, such as IEX, to have a protected quote subject to an intentional delay, it should be noted that the proposed interpretation would lead to multiple exchanges experimenting with different forms of sub-millisecond delays. Other exchanges have already expressed their intent to do so, if allowed, so the Commission would be opening the floodgates to a plethora of exchanges with protected quotes, all of which could have intentional delays of different lengths and with different implementations, ushering in a new era of uncertainty and gamesmanship in the national market system.

Responses to specific questions in the Proposed Interpretation

Q1: *Would delays of less than a millisecond in quotation response times impair a market participant's ability to access a quote or impair efficient compliance with Rule 611?*

A: Yes. As discussed above, this interpretation would significantly increase the number of times that otherwise valid orders that would have been filled on one exchange are routed to stale quotes at other exchanges. This interpretation would also significantly increase the number of times that a market move would appear to lock or cross the market, creating significant noise around the NBBO that would make it hard to interpret actual prices.

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[20] *Id.*

[21] *Id.* at 5 (citing Regulation NMS Adopting Release).

[22] One millisecond was considered relatively fast for automated trading systems at the time that Regulation NMS was implemented in 2007. In today's market a lot can happen in one millisecond. *See, e.g.*, https://www.sec.gov/marketstructure/datavis.html.

Q2: In the current market, should the Commission interpret "immediate" as including a de minimis delay of less than one millisecond? Should the Commission consider other lengths? If so, what should they be?

A: No. The Commission should allow no intentional delays as set forth in the Reg NMS Adopting Release.

Q3: Should the Commission be concerned about market manipulation? If so, specifically what should the Commission focus on?

A: Yes. Intentional delays make it easier for market participants to post quotes and cancel them before other market participants can react. This likely makes it easier and lower risk to post quotes that a market participant does not want to fill for a variety of manipulative purposes.[23] In addition, as discussed above, the Commission should also be worried about multiplying market complexity and systemic risk.

Q4: Should the Commission consider an alternative interpretation? If so, what should it be?

A: The Commission should stick with the current interpretation of Reg NMS that intentional delays disqualify quotes from being considered automated. These quotes would still be permitted, but would not be protected. Other market participants would not be forced to route to them, but, of course would be free to do so.[24] Another option would be to require venues with intentional delays that want quote protection to have "compliance" order types that would bypass intentional delays and only access protected visible quotes.

Finally, another alternative interpretation might be to allow protected quotes on exchanges with intentional delays that truly are equivalent to geographic latency in that they apply to all communications into and out of an exchange's systems. While we don't see benefits to such an interpretation, it would be less damaging than the Proposed Interpretation as it stands.

Conclusion

FIA PTG respectfully urges the Commission not to adopt the Proposed Interpretation. For the reasons above, we believe that it would introduce untold additional complexity

[23] *See* Letter from John Comerford, Executive Managing Director, Global Head of Trading Research, Instinet, FIA to Brett J. Fields, Secretary, Commission, dated March 2, 2016, *at* https://www.sec.gov/comments/10-222/10222-426.pdf

[24] This would be consistent with the recent rulemaking by the Canadian Securities Administrators that quotes on venues with intentional delays would not be protected under Canada's analogous trading rules.

and adverse unintended consequences into the already complex regime that is the national market system.

FIA PTG further urges the Commission to approve the IEX Application only after IEX (1) either amends its proposed rules to provide that IEX quotes are not protected or eliminates the proposed intentional delay in accessing the IEX order book, and (2) eliminates the speed advantage of pegged orders.

If you have any questions about these comments, or if we can provide further information, please do not hesitate to contact Mary Ann Burns (maburns@fia.org).

Respectfully,

FIA Principal Traders Group

Mary Ann Burns

Mary Ann Burns
Chief Operating Officer
FIA

cc: Mary Jo White, Chairwoman
Kara M. Stein, Commissioner
Michael S. Piwowar, Commissioner
Stephen Luparello, Director, Division of Trading & Markets