

April 8, 2016

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

Re: Proposed Commission Interpretation Regarding Automated Quotations Under Regulation NMS
(Release No. 34-77407; File No. S7-03-16)

Dear Mr. Fields:

The SEC's proposal to "interpret 'immediate' when determining whether a trading center maintains an 'automated quotation' for purposes of Rule 611 of Regulation NMS to include response time delays at trading centers that are *de minimis*, whether intentional or not" ("Interpretation") presents the high frequency trading industry with quite a pickle.

On the one hand, however unlikely, if everyone agrees a millisecond is just a millisecond and should be absurdly irrelevant to retail and institutional investment timelines, IEX's speed bump will probably be approved. But on the other, if the industry cries that a millisecond is material to price discovery, market quality, liquidity, risk management, spreads, profits, volatility, bonuses, sprawling Houston chateaus¹ and Manhattan mansions², it will bite into a pickle of an altogether different crunch: What should the SEC do about all the material time and place advantages the industry has over millions of Americans, advantages brazenly for sale at ever soaring prices?³ I can't wait to see how the industry handles the dilemma.

Gilded Facts

Of course, some milliseconds are more *de minimis* than others. In our price/time markets a millisecond is actually worth billions whenever it's put out for bid. Firms pay fortunes to capture even the tiniest time advantage because even the tiniest time advantage powers their business models. We can *price* the value of a millisecond, when that millisecond is put up for sale, by adding together what firms pay for co-location and high-speed network facilities every year. In other words, as proposed, the Interpretation is counter to the gilded facts we see in the marketplace. A millisecond is so very obviously worth billions people have actually paid billions over the years to get one.

In the face of all this in the real world, the Interpretation needs to be clear that a millisecond delay is too small to matter only if every participant at a market is subject to the delay and can't pay to get around it. If they can pay to get around it, they will certainly pay to get around it, and there is no end in sight to how much they will be willing to pay, so *in omnibus* a millisecond for sale is anything but *de minimis*.

The Interpretation could also be usefully refined to make it clear that small delays intended solely to let information disseminate, implemented so everyone is on an equal footing, without allowing any possibility of

¹ <http://www.wsj.com/articles/a-houston-chateau-asks-43-million-1411671325>

² <http://www.nydailynews.com/life-style/real-estate/buy-expensive-home-article-1.1551818>

³ One thing the SEC could do is follow through on its initiatives to have all high frequency trading firms, the most significant customers for these time and place advantages, register as dealers and become FINRA members. Chair White told the country these would "significantly strengthen regulatory oversight over active proprietary trading firms and the strategies they use" in a June 2014 speech. We have had nothing since.

human intervention, are in the letter and spirit of the Reg NMS adopting release ("Adopting Release")⁴ and the Exchange Act. Reg NMS was a great leap forward in implementing a virtual central limit order book ("CLOB"), an explicit legislative and regulatory goal for decades.⁵ And of course two central goals of the 1975 amendments to the Exchange Act were to help information disseminate and to let investors access all displayed liquidity when they submit an order. Together, Reg NMS and the Exchange Act are monuments in the effort against all the information asymmetries and time and place advantages exchanges let slip to intermediaries, greedy for their business.

But more to the point, after wisely noting that the phrase "immediately and automatically" in Reg NMS was intended to be measured against manual markets and human timescales⁶, the question isn't whether IEX's speed bump - or any speed bump - is *de minimis* considered in the abstract, it's whether IEX's speed bump, designed to reduce information asymmetries, to reduce time and place advantages, and to protect investors from predatory or manipulative trading strategies⁷, when universally applied, is likely to achieve those goals in a manner consistent with Reg NMS and the Exchange Act. I can't see anything in the debate over IEX which requires the SEC to reinterpret Reg NMS, or anything which requires the SEC to inadvertently till new ground for exchange gamesmanship and profit.⁸ By drawing a line at a millisecond - or at any threshold so small, so far past comprehension, so irrelevant to what the capital markets are for - the Interpretation risks making the speed arms race in today's market legitimate. Of course there is a lot of evidence the speed arms race is wasteful, dangerous, abusive, and expensive, facts ignored by a cult of technological onanism whose faithful believe if a technology can do something that something must be done.⁹

Blue Plate Specials

With four words - "whether intentional or not" - the Interpretation could even make the time and place advantages markets sell today unassailable. Markets will argue whole varieties of intentional delays aren't

⁴ Exchange Act Release No. 34-51808, June 9, 2005.

⁵ See letter to Brent J. Fields, Secretary, SEC, from R. T. Leuchtkafer, February 19, 2016, available at <http://www.sec.gov/comments/10-222/10222-398.pdf> and included here by reference ("Leuchtkafer Letter").

⁶ See "Notice of Proposed Commission Interpretation Regarding Automated Quotations Under Regulation NMS," March 18, 2016, Release No. 34-77407; File No. S7-03-16. "When Regulation NMS was adopted, however, the Commission was focused on the response time delays generated by manual interaction, and crafted exceptions to Rule 611 based on response times of one second."

⁷ As with, for example, the kinds of scalping and spoofing strategies spelled out in Hudson River Trading's baffling comment letter on IEX's Form 1. See examples two through four in letter to Brent J. Fields, Secretary, SEC, from Adam Nunes, Head of Business Development, Hudson River Trading, December 4, 2015, available at <http://www.sec.gov/comments/10-222/10222-33.pdf>. See also Leuchtkafer Letter, which discusses those examples and how the trading strategies illustrated in those examples harm investors.

⁸ See letter to Brent J. Fields, SEC, from Dave Lauer, Chairman, Healthy Markets Association, April 1, 2016.

⁹ A useful discussion of how the speed arms race is harmful can be found in Budish, Cramton, and Shim, "The High Frequency Trading Arms Race: Frequent Batch Auctions as a Market Design Response" (2015). Other direct and indirect discussions of the speed arms race and its negative effects on markets include Baron, Brogaard, and Kirilenko, "Risk and Return in High Frequency Trading" (2014), McNish and Upson "Strategic Liquidity Supply in a Market with Fast and Slow Traders" (2012), Ye, Yao, and Gai, "The Externality of High Frequency Trading" (2013), Ding, Hanna and Hendershott, "How Slow is the NBBO? A Comparison with Direct Exchange Feeds" (2013), Menkveld and Zoican, "Need for Speed? Exchange Latency and Liquidity" (2014), Boni, Brown, and Leach, "Dark Pool Exclusivity Matters" (2013); Breckenfelder, "Competition between High-Frequency Traders, and Market Quality" (2013); Hirschey, "Do High-Frequency Traders Anticipate Buying and Selling Pressure" (2013); Kwan and Philip, "High Frequency Trading and Execution Costs" (2015); Malinova and Park, "Liquidity Provision and Market Making by HFTs" (2015); Nanex, "Perfect Pilfering" (2014); Partington, Philip, and Kwan, "Is High Frequency Trading Beneficial to Market Quality?" (2015); Tong, "A Blessing or a Curse? The Impact of High-Frequency Trading on Institutional Investors" (2015); Toulson, "Do HFTs Really 'Game' Buy-Side Orders" (2013); Wah, "How Prevalent and Profitable are Latency Arbitrage Opportunities on U.S. Stock Exchanges?" (2016).

advantages at all and point to the Interpretation. How can any *de minimis* factor be an advantage? And if it's not an advantage, it's not a disadvantage either. Markets could introduce menu cards full of *de minimis* delays and monthly fees for avoiding them.¹⁰ Exchanges could propose that agency orders are always a millisecond slower than principal orders, or a millisecond slower than an exchange's registered market makers, or it could delay agency orders a millisecond before executing them against market makers, or delay principal orders before executing them against market makers, or delay orders of a certain size or larger before executing them, or delay orders a millisecond before routing them or before executing inbound routes. Who knows what else the wealthy curled darlings could do? This Commission's legacy can't be to unwittingly canonize the HFT industry's advantages and gaming, especially after promising to "significantly strengthen regulatory oversight" of it.¹¹

Let's don't do any of it. Abstract speed is never what animated Reg NMS and it never should be. Speed and certainty over *human intervention*, fair, efficient, and broadly disseminated market information, fair and equal market access, and mitigating time and place advantages are what animated Reg NMS, and the SEC should stand there. The SEC should not reinterpret Reg NMS in any way that might, directly or indirectly, elevate speed in the abstract over the other important policy objectives embedded in Reg NMS. The SEC should simply reiterate the original meaning and policy objectives behind Reg NMS, and note that any intentional and universal delay consistent with, and furthering the policy goals of, Reg NMS and the Exchange Act is permissible, and the SEC should approve IEX's speed bump.

The HFT industry has always tried to persuade participants and regulators the market's greatest good is speed, but that is a madness which has contributed to a pair of trillion dollar flash crashes in the last five years, thousands of mini-flash crashes, Knight's accidental suicide bombing, excessive volatility and reduced market quality¹², the ironic farce of the aborted 2012 BATS IPO, and the unhappy coincidence of an SEC official testifying before Congress that "U.S. markets are the strongest and most reliable in the world" at the exact moment U.S. exchanges were busting tens of thousands of bad trades from a technology failure. A hard millisecond threshold stipulates to the self-serving principles and logic of a small but powerful class of scalpers, snipers, and speed arms race merchants. There's no need for it to allow market structure experimentation and innovative competition, and it would strangle too many creative proposals before they have a chance.¹³ Please don't.

Sincerely,

R. T. Leuchtkafer

¹⁰ Fees for co-location, tiered high-speed network access, proprietary data feeds, and so on are on the menu cards today, but if a millisecond becomes *de minimis* in law what's to stop an exchange from fee schedules that go much further than these kinds of pay-to-play charges, e.g., zero delay for \$250,000 per month, 100 microsecond delay for \$100,000 per month; 200 microsecond delay for \$25,000 per month; 300 microsecond delay for \$20,000 per month, etc.

¹¹ See note 3.

¹² See note 9.

¹³ Some interesting proposals would be impossible, *a priori*, with a millisecond threshold, or with any arbitrary threshold. Just one example comes from Larry Harris of the USC Marshall School of Business and a former Chief Economist of the SEC, who wrote in 2013 that the speed arms race means "The fastest high-frequency traders will eventually drive out their slower competitors, and only a few HFT firms offering liquidity—perhaps just one or two—will survive." To prevent that, Harris wrote that regulators should "require all exchanges to delay the processing of every order instruction they receive by a random period of between 0 and 10 milliseconds." See "What to Do about High Frequency Trading" at <http://www.cfapubs.org/doi/full/10.2469/faj.v69.n2.6>.