January 17, 2020

Via Electronic Mail rule-comments@sec.gov

Ms. Vanessa Countryman, Secretary
Securities and Exchange Commission
100 F Street NE Washington, DC 20549

Re: SR-IEX-2019-015

Dear Ms. Countryman,

XTX Markets appreciates the opportunity to comment in support of the proposal by the Investors Exchange LLC ("IEX") to introduce a new order type, the "D-Limit" order as a means to combat the detrimental effect of latency arbitrage strategies. By way of background, XTX Markets LLC is U.S. registered broker-dealer and an affiliate of XTX Markets Ltd. (collectively "XTX Markets"), a London-based FCA authorized investment firm. XTX Markets is a quantitative electronic market maker with global trading operations. We provide liquidity in equities, FX, Futures, Commodities, Options, and U.S. Treasuries. XTX Markets executes daily volume of approximately $150 billion across all asset classes and geographies. XTX Markets is a strong advocate globally for fair and transparent markets and is committed to making markets more efficient and competitive, in part by advocating for policies that reduce barriers to entry. Based on our experience globally, and for the reasons that follow, XTX Markets believes IEX's D-Limit order will have the effect of mitigating the harm caused by aggressive liquidity removing strategies that seek to exploit high speed information asymmetry advantages and will thereby incentivize liquidity providers to narrow spreads and display larger size for the benefit of end investors.

All order messages accessing IEX today are subject to a 350-microsecond speed bump imposed by the exchange. There is one exception to this speed bump, and that is the repricing of certain non-displayed pegged orders in response to the exchange activating its crumbling quote indicator ("CQI"). The CQI is a proprietary IEX formula, codified in IEX's rules, designed to predict whether a particular quote is unstable or "crumbling," meaning that the NBB is likely about to decline or the NBO is likely about to increase. In such situations, the CQI will trigger for up to two milliseconds and prevent resting non-displayed pegged orders from executing at the quote they would otherwise be pegged to. In so doing, IEX protects these non-displayed pegged orders from adverse selection during the period in which the CQI is on.

IEX is now proposing to extend the protection afforded by the CQI to displayed liquidity in the form of a new order type, the D-Limit order. As proposed, a D-Limit order would be a protected quote that, when the CQI is triggered, would reprice to one minimum price variation less aggressive than its original displayed price. Once repriced, a D-Limit order will not adjust back to its original, more aggressive displayed price.

Protections from latency arbitrage in U.S. Equity markets are needed

XTX Markets supports IEX's D-Limit order proposal, and we are pleased that another market operator is seeking to implement initiatives that would provide protection to displayed liquidity from latency arbitrage. In proposing the D-Limit order, IEX joins EDGA, which has proposed its own speed bump to protect displayed orders,[1] and Intelligent Cross's Aspen ATS, which executes displayed orders only after a brief delay, the length of which varies based on Intelligent Cross's proprietary machine learning algorithm.[2] Collectively, these market operators are responding to the need to attract competitive displayed liquidity and broaden the scope of market participants willing to provide that displayed liquidity by offering protections against adverse selection occurring in millisecond and microsecond timescales. We applaud each of these initiatives.

As we have previously articulated in our comment letters in favor of the EDGA speed bump proposal,[3] XTX Markets believes that the race for speed in trading has reached an inflection point where the marginal cost of gaining an edge over other market participants, now measured in microseconds and nanoseconds, is harming investors. Liquidity providers need to price to the average of the toxicity of the order flow they interact with, and to the extent they are

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1 See SR-CboeEDGA-2019-012 (June, 20, 2019) (https://www.sec.gov/rules/sro/cboeedga/2019/34-86168.pdf).

2 See Intelligent Cross Form ATS-N (https://www.sec.gov/Archives/edgar/data/1708826/000170882619000011/xslATS-N_X01/primary_doc.xml).

3 Letters from XTX Markets to Vanessa Countryman, Secretary, Securities and Exchange Commission (October 18, 2019) (https://www.sec.gov/comments/sr-cboeedga-2019-012/srcboeedga2019012-6315057-193650.pdf); (July 31, 2019) (https://www.sec.gov/comments/sr-cboeedga-2019-012/srcboeedga2019012-5898688-188828.pdf), and (July 17, 2019) (https://www.sec.gov/comments/sr-cboeedga-2019-012/srcboeedga2019012-5815378-187468.pdf).

adversely selected by latency arbitrage strategies, they must widen their spreads to account for that possibility. This in turn increases the costs of trading for all investors accessing that market. By neutralizing latency arbitrage strategies, market operators can incentivize liquidity providers to quote narrower displayed spreads at larger sizes. In addition, XTX Markets believes such measures can attract additional market participants to provide displayed liquidity who may avoid doing so today because of the risk of adverse selection.

Because IEX has been operating its CQI since it launched as an Exchange in 2016, IEX has valuable data demonstrating the precise behavior it is targeting with the D-Limit order. For example, in the Proposal, IEX notes that:

1. When the CQI is on, liquidity providing orders experience negative one-second markouts 76% of the time, as compared to 23.5% of the time when the CQI is off.

2. 55.9% of all orders received when the CQI is on arrive immediately prior to a price move favorable to the aggressive order, compared to 19.5% of orders received when the CQI is off.

3. Although the CQI is on only 1.64 seconds per symbol per day on average, 33.7% of marketable orders are received during these time periods, suggesting that certain trading strategies appear to involve entering liquidity taking orders targeting resting orders at prices that are likely to imminently move adversely from the perspective of the resting order.

4. Proprietary trading firms are more likely to seek to trade against IEX resting orders while the CQI is on than other firms – within the two millisecond period following the CQI determinations, proprietary trading firms submit 6.8 times as many marketable-to-mid shares as other firms, while outside of those two millisecond periods, other firms submit 3.4 times as many marketable-to-mid shares as proprietary firms.

5. For displayed orders on IEX that trade when the CQI is on, the average markouts are negative $.0036 per share 10 milliseconds after trade time. In contrast, when the CQI is off, the average markouts for displayed orders on IEX are positive $.0045 at 10 milliseconds after trade time.

XTX Markets agrees with IEX that this data is particularly significant and evidence that certain members entering liquidity taking orders when the CQI is on appear to be able to engage in latency arbitrage, leveraging fast proprietary market data feeds and connectivity to chase short-term price momentum and targeting resting orders at unstable prices microseconds and milliseconds before liquidity providers can update their prices.

XTX Markets also believes the above-referenced data IEX has collected by virtue of running the CQI calculation is not data unique to IEX. Rather, XTX Markets believes similar data is present at each of the other exchanges. Latency arbitrage trading strategies that rely on microsecond and millisecond speed advantages are a feature of highly fragmented markets and not surprisingly are prevalent throughout the U.S. equities market. In fact, XTX Markets believes the data IEX has collected fails to even tell the whole story in as much as the CQI triggers based on activity in the U.S. equity market alone. Augmenting that data with cross asset price information from the futures markets, for example, would increase the incidences identified of latency arbitrage strategies targeting momentarily stale prices. This limitation in IEX's data also reflects a limitation in the likely effectiveness of IEX's proposed D-Limit order in protecting displayed orders; nonetheless, IEX's initiative is an important step towards neutralizing latency arbitrage and XTX Markets fully supports it.

Arguments against latency arbitrage protections are specious

XTX expects IEX's D-Limit order proposal will attract some of the same unwarranted criticisms as Cboe's EDGA speed bump proposal, namely, concerns that D-Limit orders will result in "phantom" liquidity, concerns that allowing a liquidity providing order to re-price in the face of a crumbling quote is a form of "last look" that has been widely (and wisely) criticized in FX markets, and concerns that the D-Limit order type unfairly discriminates against liquidity removers in favor of liquidity providers.

We have previously addressed these arguments at length in our three comment letters on the EDGA filing and we believe those comments are equally applicable to IEX's D-Limit order proposal; hence, we incorporate them by reference here.[4] We will add, however, a few points. First, we think that IEX's own data demonstrates that the CQI is targeting exactly the behavior intended and that for market participants not seeking to engage in latency arbitrage strategies, the quote they see is the quote they will have access to.

Second, we believe that where it is the case, as it is in both IEX's proposal and EDGA's proposal, that the provider of liquidity will have no direct knowledge of a liquidity removing order seeking to execute against its quote, comparisons to last look are misguided and conflated, likely intentionally so in our opinion. If it's even possible, such arguments ring hollower here where the exchange, not the provider of liquidity, is deciding whether to reprice an order. Finally, IEX's D-Limit order, like EDGA's proposed speed bump, is designed to protect providers of liquidity from costly and harmful latency arbitrage. As we have said before, we do

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[4] Id.

not believe these initiatives are unfairly discriminatory as would be required to be found to deny an exchange the ability to implement such protections. In fact, we believe the potential benefits of such measures in the form of better prices, larger size, and more competition for liquidity provision from a broader set of market participants than exist today, all argue in favor of measures such as IEX's D-Limit order and EDGA's speed bump proposal reflecting the type of carefully tailored protection and innovation the Commission should be encouraging to make our equities market more fair and efficient.

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Thank you for the opportunity for XTX Markets to provide its comments. As noted above, XTX Markets supports IEX's D-Limit order proposal. XTX Markets believes it is consistent with the Act and, when implemented, will enable liquidity providers to narrow spreads and display larger sizes for the benefit of end investors. If you have any questions about our views, please don't hesitate to contact me.

Sincerely,

Eric Swanson
CEO, XTX Markets LLC (Americas)

Cc: The Honorable Jay Clayton, Chairman
The Honorable Robert J. Jackson, Jr., Commissioner
The Honorable Hester M. Peirce, Commissioner
The Honorable Elad L. Roisman, Commissioner
The Honorable Allison Herron Lee, Commissioner
Brett Redfearn, Director, Division of Trading and Markets
Elizabeth Baird, Deputy Director, Division of Trading and Markets
Christian Sabella, Deputy Director, Division of Trading and Markets
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