HEALTHY MARKETS
TRANSPARENCY & TRUST

February 14, 2020

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

Vanessa Countryman
Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: Exch. Act Rel. No. 34-87814; File No. SR-IEX-2019-15
Exch. Act Rel. No. No. 34-86168; File No. SR-CboeEDGA-2019-012

Dear Ms. Countryman:

The Healthy Markets Association[1] appreciates the opportunity to offer our comments to the above-referenced proposal to introduce a "D-Limit" order type on Investors Exchange LLC (IEX),[2] as well as contrast it to a very different proposal by the CBOE EDGA exchange.[3] Some have argued that these two very different proposals should be considered similarly by the Commission.[4] We disagree.

In short, we believe the D-Limit Proposal is consistent with the Exchange Act and Commission Rules, and should be approved. At the same time, as we've described in

---

[1] 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. To learn more about Healthy Markets or our members, please see our website at http://healthymarkets.org.

[2] *Notice of Filing of Proposed Rule Change to Add a New Discretionary Limit Order Type,* Sec. and Exch. Comm'n, Exch. Act Rel. No. 34-87814, Dec. 20, 2019, *available at* https://www.sec.gov/rules/sro/iex/2019/34-87814.pdf ("D-Limit Proposal"). We also note that the staff has recently designated a longer time to decide whether to approve or deny the D-Limit filing. *Notice of Designation of Longer Period for Commission Action on a Proposed Rule Change to Add a New Discretionary Limit Order Type Called D-Limit*, Sec. and Exch. Comm'n, Exch. Act Rel. No. 34-88186, Feb. 12, 2020, *available at* https://www.sec.gov/rules/sro/iex/2020/34-88186.pdf.

[3] *Notice of Filing of a Proposed Rule Change to Introduce a Liquidity Provider Protection on EDGA*, SEC, Exch. Act Rel. No. 34-86168; Jun. 20, 2019, *available at* https://www.sec.gov/rules/sro/cboeedga/2019/34-86168.pdf ("EDGA LPP Proposal").

[4] *See, e.g.*, Letter from Joanna Mallers, FIA PTG, to Vanessa Countryman, SEC, Jan 21, 2020, *available at* https://www.sec.gov/comments/sr-iex-2019-15/sriex201915-6673725-204049.pdf.

detail previously, the EDGA LPP Proposal is inconsistent with the Exchange Act and Commission Rules, and should be denied.[5]

Further, so as to focus on the relevant law and policy, we urge the Commission to detail the characteristics that warrant approval of the D-Limit Proposal and the denial of the EDGA LPP Proposal. In an effort to assist the Commission, we highlight some of the key distinguishing characteristics between the different proposals below.

Lastly, we note that if the Commission approves the D-Limit Proposal, it may need to consider additional guidance regarding the definition and application of intermarket sweep orders (ISOs) under Regulation NMS.[6]

D-Limit Proposal

On December 16th, IEX filed a proposal to create a new order type, the D-Limit, which it argues is “designed to protect liquidity providers from potential adverse selection by latency arbitrage trading strategies.”[7] According to the D-Limit Proposal, the order type would protect investors and market makers with resting orders from

> potential adverse selection by latency arbitrage trading strategies in a fair and nondiscriminatory manner, without, as some commenters have mentioned, introducing concerns around unnecessary complexity, disparate treatment, and fair access by institutional investors to displayed quotations that have been voiced with regard to the EDGA asymmetrical speed bump proposal.[8]

The D-Limit order type utilizes IEX’s proprietary technology (the “crumbling quote indicator” or “CQI”) to reprice orders when the CQI is “on”.[9] According to the D-Limit Proposal filing, the CQI is

> 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. As set forth in IEX

[5] See Letter from Tyler Gellasch, Healthy Markets Association, to Vanessa Countryman, SEC, July 16, 2019, *available at* https://www.sec.gov/comments/sr-cboeedga-2019-012/srcboeedga2019012-5815372-187487.pdf (“HMA Objection Letter I”); see also, Letter from Tyler Gellasch, Healthy Markets Association, to Vanessa Countryman, SEC, Oct 21, 2019, *available at* https://www.sec.gov/comments/sr-cboeedga-2019-012/srcboeedga2019012-6321415-194408.pdf (“HMA Objection Letter II”).

[6] *See, e.g., Responses to Frequently Asked Questions Concerning Rule 611 and Rule 610 of Regulation NMS*, SEC, *available at* https://www.sec.gov/divisions/marketreg/rule611faq.pdf.

[7] D-Limit Proposal, at 6.

[8] D-Limit Proposal, at 4.

[9] D-Limit Proposal, at 10.

> Rule 11.190(g), the Exchange utilizes real time relative quoting activity of certain Protected Quotations and a proprietary mathematical calculation (the "quote instability calculation") to assess the probability of an imminent change to the current Protected NBB to a lower price or Protected NBO to a higher price for a particular security ("quote instability factor"). When the quoting activity meets predefined criteria and the quote instability factor calculated is greater than the Exchange's defined quote instability threshold, the System treats the quote as unstable and the CQI is on at that price level for up to two milliseconds.[10]

The Commission has previously permitted IEX to offer order types that will not execute during the periods when the CQI is "on."[11] And those orders comprise a significant percentage of the volume on IEX. For example, in September 2019, DPeg and PPeg orders comprised a collective 38 percent of IEX's traded volume, and a whopping 55 percent of liquidity adding volume.[12] Further, these CQI-linked order types were used by 70 of the 145 IEX Members, including the members who comprise the vast majority of orders and trades on IEX.[13] Unlike those two order types, however, the D-Limit would not prevent executions when the CQI is on. Rather, the D-Limit would reprice the order up or down one tick, based on the predicted direction of the market movement.

Notably, the Commission has also previously permitted exchanges to reprice orders based on the exchanges' determinations that the NBBO has changed. What is novel about the D-Limit proposal is that the Commission is being asked to permit the exchange to reprice orders based upon the exchange's determination that the NBBO is *about to change*.

In this way, IEX is seeking to combine two concepts that have previously been permitted by the Commission: (1) the use of its CQI to prevent executions at certain prices and (2) the authority of an exchange to reprice orders.

EDGA LPP Proposal

On June 7, 2019, the EDGA Exchange filed a proposal to introduce a four millisecond delay on all incoming "executable orders that would remove liquidity from the EDGA Book on entry."[14] Orders subject to the delay would wait the four milliseconds before executing against resting orders, but would be "released early if resting orders are cancelled or modified such that the incoming order is no longer executable against such

[10] D-Limit Proposal, at 6.
[11] See generally, D-Limit Proposal, at 7 (reflecting that certain DPeg and PPeg orders will not be executed during the period in which the CQI is on).
[12] D-Limit Proposal, at 7.
[13] D-Limit Proposal, at 7.
[14] EDGA LPP Proposal, at 5.

orders."[15] However, "[s]o as to avoid unnecessarily queueing orders that are not executable when entered, order instructions that could prevent an incoming order from being executed and removing liquidity on entry (e.g., Minimum Quantity and Post Only) would be considered prior to subjecting the order to the delay mechanism."[16] Notably, however, "[t]he unrouted balance of a routable order that is entered into the EDGA Book would be treated as a new incoming order and evaluated as such by the delay mechanism."[17]

All orders that add liquidity to the exchange,[18] as well as all modifications or cancellations of those orders, would not be subject to the delay.[19] Further, "orders that are routed on entry would not be eligible for delay until entered for execution with resting orders on the EDGA Book."[20]

The Exchange would not delay its distribution or use of the information. Particularly, the Exchange would continue to disseminate quote and trade data through both its proprietary direct market data feeds and the applicable securities information processor ("SIP") without any delay.[21] Further, the Exchange's own systems "would use current, un-delayed data, for all purposes including regulatory compliance (e.g., trade-through) and pricing of orders pegged to the NBBO."[22]

Further, despite the fact that quotes on the EDGA Exchange would not being subject to the Order Protection Rule,[23] they would be included on the SIP.

The EDGA LPP Proposal also seeks an exemption from Rule 610(d), which would otherwise "require that EDGA avoid locking or crossing any quotation in an NMS stock disseminated pursuant to an effective national market system ("NMS") plan instead of only protected quotations as required pursuant to Rule 610(d)(1)(i)."[24] Specifically, the EDGA LPP Proposal seeks to revise its Exchange Rule 11.10(f) to

> permit the Exchange to continue to lock or cross potentially stale manual quotations disseminated by the New York Stock Exchange LLC ("NYSE") pursuant to an effective NMS plan… [which it argues] would permit EDGA to continue to operate in the manner that it does today with respect to

[15] EDGA LPP Proposal, at 6.
[16] EDGA LPP Proposal, at 6.
[17] EDGA LPP Proposal, at 8.
[18] EDGA LPP Proposal, at 5.
[19] EDGA LPP Proposal, at 7.
[20] EDGA LPP Proposal, at 8.
[21] EDGA LPP Proposal, at 8.
[22] EDGA LPP Proposal, at 8.
[23] Rule 611 of Reg. NMS.
[24] EDGA LPP Proposal, at 13.

> locked and crossed markets, notwithstanding the proposed dissemination of a manual, un-protected, quotation.[25]

Further, the EDGA LPP Proposal seeks an exemption from Rule 611 to permit the Exchange to execute an automated quotation that would come in to cross against its disseminated manual quotation, even though it hasn't also crossed another market's protected quotation.[26]

As the EDGA LPP Proposal explains,

> Based on the Exchange's analysis, crossed market scenarios are infrequent in today's highly efficient market, and tend to be short lived, with 99% of crossed markets being resolved within 25 milliseconds or less. As a result, the Exchange is proposing to implement delayed cancellation behavior to allow an aggressively priced order to remain posted at its limit price for as long as it is executable pursuant to Rule 611(b)(8) – i.e., the "Flickering Quote Exception." As proposed, a bid (offer) on the EDGA Book would be eligible to remain posted to the EDGA Book for one second after such bid (offer) is crossed by a Protected Offer (Protected Bid). Such bid (offer) would be executable during this one second period pursuant to Rule 611(b)(8) of Regulation NMS, notwithstanding the fact that it is higher (lower) than a Protected Offer (Protected Bid). In turn, the bid (offer) on the EDGA Book would be cancelled if it continues to be higher (lower) than a Protected Offer (Protected Bid) after this one second period.[27]

Put simply, in addition to the delay mechanism itself, the EDGA is proposing that it receive a very unique regulatory treatment, including exemptions from several different existing SEC rules and interpretations.

Standard of Review

The Commission is obligated to review SRO filings and determine that those filings are consistent with the Exchange Act,[28] including, inter alia, that an exchange's rules:

---

[25] EDGA LPP Proposal, at 14.
[26] EDGA LPP Proposal, at 16.
[27] EDGA LPP Proposal, at 16-17 (citing a study of seven securities during a single trading day).
[28] See *Susquehanna Int'l Grp., LLP v . SEC*, 866 F.3d 442 (D.C. Cir. 2017).

- "perfect the mechanism of a free and open market and a national market system,"[29]
- "protect investors and the public interest,"[30]
- "not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers";[31] and
- "not impose any burden on competition not necessary or appropriate in furtherance of the purposes of" the Act.[32]

The Commission's Rules of Practice clearly place the "burden to demonstrate that a proposed rule change is consistent with the [Exchange Act] and the rules and regulations issued thereunder" on the Exchange proposing a rule change.[33] In addition

> [t]he description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding, and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[34]

Key Questions

When assessing the two distinct proposals for compliance with the Exchange Act, we think it is important to focus on three key questions:

1. What's the purpose?
2. Is the action automatic and certain, or is it discretionary?
3. What is the predicted impact on quote accessibility?

---

[29] 15 U.S.C.§ 78f(b)(5).
[30] 15 U.S.C.§ 78f(b)(5).
[31] 15 U.S.C.§ 78f(b)(5).
[32] 15 U.S.C.§ 78f(b)(8).
[33] Rule 700(b)(3), Commission Rules of Practice, Sec. and Exch. Comm'n, 17 CFR 201.700(b)(3).
[34] *Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove a Proposed Rule Change Amending the Fee Schedule Assessed on Members to Establish a Monthly Trading Rights Fee*, Sec. and Exch. Comm'n, Exch. Act Rel. No. 86236, at 7, June 28, 2019, *available at* https://www.sec.gov/rules/sro/cboeedga/2019/34-86236.pdf.

What's the Purpose?

The EDGA LPP Proposal would give any quoting market participant a window in time during which it can avoid an execution of its resting order. The window in time, four milliseconds, is effectively an eternity in the ultra-low latency trading world, but is also simultaneously an extremely short period of time for most market participants. As a result of this disparity in market participants' trading behaviors, the "option" would effectively benefit only those with significant geographical and informational advantages, as well as extensive predictive analytical capabilities. Thus, ultra-low latency traders would have the ability to offer extremely aggressive quotes on the exchange, without fear of having to actually ever execute at those prices.

Unfortunately, market participants seeking to access that liquidity would tip their hands, and thus could be subject to significantly worse overall execution quality on any remaining portions of their orders. Put simply, the purpose of the EDGA LPP Proposal seems to be to (1) provide misleadingly attractive prices that are unlikely to result in executions, and (2) offer opportunities for ultra-low latency traders to lure other market participants into revealing their trading intentions.

By contrast, the D-Limit order essentially seeks to recreate a market function that ultra-low latency traders are able to perform on other market venues today, but for all market participants on IEX. Currently, ultra-low latency traders assess market conditions based on their intake of various data feeds, predict potential changes to market prices, and then modify their quoting behavior accordingly. They cancel, reprice, and engage in other actions based on their predictions--all based on their geographical and informational advantages, as well as their predictive analytics.

IEX's 350 microsecond speed bump, however, intentionally creates a specific challenge for these traders, in that it prevents them from instantly cancelling or modifying their quotes based on this information. Instead, these subsequent changes to their orders would have to go through the speed bump. By the time they emerge from the other side of the delay, they may be "too late" to avoid an execution.

At the same time, IEX has developed its CQI precisely to predict and prevent executions on its exchange at the exact times that the market is moving away from those prices.

Thus, IEX is offering the D-Limit order type to provide any Member with narrowly targeted protection by repricing its orders on behalf of the Member during those periods when its CQI predicts the market may be moving -- but without the need for the Member to have any geographical or informational advantages or its own predictive analytical capabilities. Thus, the D-Limit Proposal appears to offer a service that can be utilized by all of its Members to help ensure they don't receive executions at prices that would likely carry a negative realized spread. This capability can thus improve the effective spread realized by various types of market participants, from long term investors to algorithmic traders. We surmise that for this reason that many long-term investors and their advocates are supportive of the proposal.[35]

Is the Action Automatic and Certain, or Discretionary?

The EDGA LPP Proposal would essentially provide all market participants with resting orders a free option to modify or cancel their orders before execution. However, as stated above, and in our prior objection letters,[36] this option could practically be utilized by only ultra-low latency traders. Further, because it is an option, there is uncertainty for the outcomes for all market participants seeking to access liquidity on EDGA. Sometimes a liquidity taking order would receive an execution, and other times it would not.

By contrast, the IEX D-Limit order type would not provide any market participants with an option. When the CQI triggers, the orders would reprice -- 100 percent of the time. At the same time, the process for when the CQI triggers is transparent and codified in the IEX rulebook. Thus, the D-Limit is both deterministic and transparent. The automated repricing provides certainty to all market participants as to whether and under what contexts an incoming order would be executed or not.

What is the Impact on Quote Accessibility?

The EDGA LPP Proposal would apply throughout the trading day, essentially providing ultra-low latency traders with the option to "fade" their quotes all day long. By definition, this will dramatically reduce the accessibility of all quotes on the exchange. As we previously explained to the Commission, we believe that this renders the EDGA LPP Proposal inconsistent with the Quote Rule.[37]

By contrast, the D-Limit Proposal would move the price levels for D-Limit orders at the time the CQI is on. According to IEX, "across all approximately 8,000 symbols available for trading on IEX, the CQI is on only 1.64 seconds per symbol per day on average

---

[35] *See, e.g.*, Letter from Mehmet Kinak, T. Rowe Price, to Vanessa Countryman, SEC, Feb. 5, 2020, *available at* https://www.sec.gov/comments/sr-iex-2019-15/sriex201915-6772531-208082.pdf ("IEX's D-Limit order type is designed to equally benefit long-term investors, their brokers, and market makers alike. Any market participant can use D-Limit, regardless of their sophistication or technological capability, and any speed or information advantage they may or may not have."); see also, Letter from Kenneth Bertsch and Jeff Mahoney, Council of Inst. Investors, to Vanessa Countryman, SEC, Feb. 11, 2020, *available at* https://www.sec.gov/comments/sr-iex-2019-15/sriex201915-6795848-208391.pdf. We acknowledge that while the investor and brokerage communities seem largely supportive of the proposal, some proprietary trading firms and their advocates are not. By contrast, we note that opposition to the EDGA LPP Proposal spanned a broad swath of market participants and groups, including Healthy Markets.

[36] HMA Objection Letter I and HMA Objection Letter II.

[37] HMA Objection Letter I, at 8-11.

(0.007% of the time during regular market hours)."[38] Facially, this is not a significant negative impact on the overall accessibility of quotes on IEX.

Further, IEX has offered a meaningful analysis of the trading on its exchange, including when the CQI is on.[39] This analysis breaks the trading down by market participant, and illustrates significant differences in how and when different segments of market participants trade. Importantly, it demonstrates that full-service and agency broker dealers accessing the exchange do not appear to be submitting aggressive orders to the exchange based upon their anticipation of a particular price change (as determined by the triggering of the CQI). By contrast, the exchange's analysis demonstrates that proprietary trading firms tend to submit substantial percentages of their orders immediately before and shortly after the triggering of the CQI, which suggests strongly that these traders are looking to "pick off" orders based on those firms' own determinations that the markets are about to, or are in the process of, moving.

Institutional traders seeking to access liquidity on IEX would thus continue to be able to access orders the vast majority of the trading day.

Additional Factors for Consideration for EDGA LPP and D-Limit Proposals

In addition to the above considerations, we note that there are significant uncertainties regarding how the EDGA LPP Proposal would operate.[40] We also note that the EDGA LPP Proposal (1) does not include significant relevant details and analysis, (2) would erode the quality of the NBBO through its inclusion in the SIP, (3) would create opportunities for market manipulation and abuses, and (4) would hinge a rule's operation upon current technology and time horizons.

The D-Limit Proposal, by contrast, appears to offer sufficient clarity on how it operates and includes relevant data about how often it would likely reprice orders and other factors. However, we wish to address one issue that is raised by the iteration of IEX's speed bump and the D-Limit order type that may warrant additional consideration.

Currently, when a trading firm sends out an ISO, it generally seeks to send those orders at about the same time, and they instruct the exchanges that they have handled the trade-through obligations based upon order entry. However, market participants seeking to sweep the market at a particular price level may wish to time the sending of their

---

[38] D-Limit Proposal, at 18. We would, however, have significant concerns if the frequency and periods of repricing were a more material portion of the trading day, such as for minutes or hours.

[39] See Eric Stockland, A Deliberate Strategy, Dec. 17, 2019, *available at* https://medium.com/boxes-and-lines/a-deliberate-strategy-bb8b0cff074b. We believe this analysis is essential to the Commission's consideration of the D-Limit Proposal, and the Commission should require similar types of analysis as part of exchange's filings for all new order types.

[40] See, e.g., HMA Objection Letter I, at 6-8.

orders somewhat differently to account for geographic and other latency differences among exchanges so that they arrive at all exchanges at the same time. This may help them to avoid alerting other market participants to their trading intentions. Essentially, they program their sweep logic to account for the different times across different venues (including based on geographical distances or, in the instance of IEX, its physical 350 microsecond time delay). While this is not a new phenomenon, the combination of IEX's 350 microsecond delay and the D-Limit order type appear to raise this issue for broader consideration. Accordingly, we ask the Commission to consider clarifying or revising (if deemed necessary) its interpretation of an ISO to reflect that brokers are permitted, consistent with the rules governing ISOs, to time the component parts of an ISO in the way just described in order to maximize their ability to get all available liquidity.

Conclusion

Because the D-Limit Proposal is consistent with the language and intent of the Exchange Act, and IEX has provided relevant data to support its proposal, we recommend the Commission approve it. At the same time, we strongly caution the Commission against approving other proposals -- including the EDGA LPP proposal -- which are not compliant with the terms of the Exchange Act, are unsupported by relevant data and analyses, and may create significant opportunities for abuse.

Thank you for your consideration.

Should you have any questions or would like to discuss these matters further, please contact me at (202) 909-6138.

Sincerely,

Tyler Gellasch
Executive Director