July 17, 2019

Vanessa Countryman
Secretary
U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: File No. SR-CboeEDGA-2019-012; Cboe EDGA Exchange, Inc.; Notice of Filing of a Proposed Rule Change to Introduce a Liquidity Provider Protection on EDGA

Dear Ms. Countryman:

Hudson River Trading LLC ("Hudson River Trading") appreciates the opportunity to comment on Cboe EDGA's above captioned proposal. Hudson River Trading is a global, multi-asset class market making and principal trading firm that develops automated trading strategies that provide liquidity and facilitate price discovery on exchanges and alternative trading systems. Our affiliate, HRT Financial LLC, is a member of all U.S. equities exchanges and is a registered market maker in over 4,000 stocks and exchange-traded funds.

Hudson River Trading believes it is critical that the Securities and Exchange Commission ("Commission") ensures impartial, orderly, and efficient markets. The proposed Liquidity Provider Protection ("LPP") delay is designed to intentionally delay orders and cancellations of such orders that could immediately execute against displayed or undisplayed prices on EDGA by 4 milliseconds[1] from the time the order is received by EDGA while allowing non-marketable displayed or undisplayed orders to be posted and cancellation of such orders on EDGA to be processed without an intentional delay[2]. The proposed rules are not designed to protect investors and the public interest, aim to permit unfair discrimination, and would impose an unnecessary and inappropriate burden on competition by creating a free-rider problem. The LPP raises several issues insofar as it is designed to 1) allow EDGA and its liquidity providers to free-ride on price discovery on competing markets; 2) create a distinct advantage for firms engaged in liquidity provision on EDGA relative to firms that access liquidity on EDGA; 3) harm market quality by enabling conditional quotations; 4) act as an opaque rebate to liquidity providers; and 5) circumvent Rule 602 ("Quote Rule") of Regulation NMS.

LPP Will Harm Competition

EDGA seeks to gain approval for an unfair competitive strategy that is designed to allow EDGA and its liquidity providers to free-ride off of price discovery by participants on competing

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[1] EDGA based its proposed LPP delay on the approximate latency difference between two commercially available telecommunications services between Chicago and the NY-NJ metro area. EDGA did not justify why the difference between a microwave network and a fiber network between Chicago and NY-NJ is the appropriate benchmark. Microwave networks and market data between Chicago and NY-NJ have been commercially available since 2012. There are greater latency differences between competing services between Tokyo and NY-NJ as well as between European market centers and NY-NJ. Market information from those markets have a similar effect on prices in some U.S. equities.
[2] *See* Release No. 34-86168; File No. SR-CboeEDGA-2019-012

exchanges under the guise of mitigating speed differentials among firms seeking to provide liquidity in the US Equities markets. EDGA attempts to justify this competitive strategy by citing potential speed differences among its liquidity providers[3]. We believe it is important to see through EDGA's simplistic and convenient argument that given the same market data, all liquidity providers know the same fair value of stocks and that some are simply faster than others in updating prices. EDGA suggests that when the S&P 500 Future that is traded on the Chicago Mercantile Exchange changes price, all liquidity providers apply the same logic and update their prices accordingly and those that do not update as quickly are not doing so solely due to latency and thus have "stale" prices. In reality, price discovery is not so uniform and simple. In fact, EDGA is proposing a structure that would not require its participants to have any understanding of the relationship between S&P 500 Futures, S&P 500 ETFs, the constituents of the S&P 500, or any other correlated securities. Rather, EDGA is proposing a structure that would allow its liquidity providers a nearly risk-free ability to wait and see what the effect on price discovery is on competing equity exchanges and simply match the prices of other equities markets while market participants on competing markets bear the risk of execution. This will have the effect of discouraging firms that actively participate in price discovery from doing so as they will have their prices copied by liquidity providers on EDGA that will not be required to take the same risk. This may lead to less informed prices and wider bid-ask spreads on the competing exchanges.

EDGA does not address any substantive competitive issues in its "Statement on Burden on Competition." It claims that the proposal is not a burden on competition because it "is a competitive response to delay mechanisms available on other markets[4]." By such logic, any exchange that proposed to be an alternative to matching buy and sell orders would not impose a burden on competition regardless of its structure. EDGA does not address the burden on competition that the LPP may cause by allowing EDGA and its liquidity providers to free-ride on prices that are discovered on markets that do not employ an asymmetric delay. This free-riding by EDGA and its liquidity providers will create a meaningful burden on competition relative to exchanges that do not employ a delay. This free-riding discourages liquidity providers from displaying prices on competing exchanges that do not impose a delay, leading to less liquidity and diminished price discovery on competing markets. Market participants are instead encouraged to display prices on EDGA, which offers them the ability to observe prices on competing exchanges and update its prices with limited risk during the delay.

EDGA states that "Cancel messages for liquidity taking orders that are being processed by the delay mechanism would instead be queued and applied to the remaining quantity of the order after the order has exited the delay mechanism and executed against any resting orders on the

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[3] EDGA undermines its argument that speed differentials are the cause of differences in the prices of securities. EDGA proposes to create an exception for its EdgeRisk Self Trade Protection mechanism from the delay. If EDGA's narrative is accurate and executions occur solely due to latency differences, a single firm would never be in a situation in which it has outstanding orders to buy and sell the same security at the same price because the firm would process the information and update its notion of fair value. The firm could simply send a cancel of the "stale" order prior to the new order, thus avoiding the need for self trade prevention. In reality, firms use various techniques to forecast prices in securities and a single firm using the exact same market data may forecast different prices that could result in self matches. When applied to many firms that employ different strategies and valuation techniques, differences of opinion on the fair value of a security that are not based on differences in latency will occur.

[4] *See Supra* note 2

EDGA Book." EDGA provides no justification for allowing senders of non-marketable orders to cancel at any time while not permitting the sender of a marketable order to cancel the order while it is in the delay mechanism. For example, if an investor seeks to buy a stock and the price moves up during the delay, the liquidity provider can update its price during the delay, leaving the investor without an execution and the potential to have to attempt to trade again at an inferior price. If, however, the investor wants to buy and the price moves down during the delay, the investor cannot update its price during the delay and will be subject to potential execution at the "stale" price[5]. Disallowing marketable orders from being canceled during the delay mechanism does not protect liquidity providers, it harms investors whose marketable orders are delayed without the ability to update their order prices based on new information received during the delay while providing the opportunity for liquidity providers on EDGA to take advantage of the marketable order sender's inability to cancel.

LPP Will Harm Market Quality

There is no evidence to suggest that LPP will lead to an improvement in overall market efficiency or that it will enhance fairness and competition. LPP may enhance displayed liquidity, however, the enhanced displayed liquidity will be made possible by making such displayed liquidity conditional and less accessible. Liquidity providers may have the ability to quote larger sizes and potentially tighter spreads because they will have the option to back away from those quotes during the 4 millisecond delay.

The ability of EDGA liquidity providers to free-ride off of price discovery on competing exchanges will discourage other market participants from investing in and engaging in price discovery and liquidity provision on competing exchanges because EDGA participants will have the ability to copy their prices and capture some of the benefit of that price discovery. In addition, because EDGA will discourage marketable orders that contribute to price discovery, those orders will be diverted to competing venues, potentially leading to increased adverse executions for liquidity providers. The result of this activity may be to reduce liquidity, degrade price discovery, and widen spreads overall in the market.

Hudson River Trading is concerned about the impact of pervasive "manual" quotations that will contribute to the market's National Best Bid and Offer on the operation of the market. For example, Rule 201 of Regulation SHO imposes a price test on short sale restricted securities that is based on the "consolidated best bid," not the best "protected bid" available under Regulation NMS[6]. Under current market conditions the best consolidated bid and best protected bid are nearly always the same. However, under the proposal EDGA's best bid will not be immediately accessible and should not be used as a reference price for Regulation SHO. This is only one example of reference prices that will be subject to lower quality market data. Unless it is addressed, this lower quality market data will be used as a reference price for Rule 605 reporting, best execution, mid-point executions, and over the counter transactions.

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[5] The order would not be permitted to trade through other exchanges' protected quotes; however, a number of factors may lead a participant to update its fair value of a security.

[6] *See* Release No. 34-61595; File No. S7-08-09, p. 63. The Commission stated that "We also note that the national best bid is nearly always a protected bid for the trade-through rule of Rule 611 of Regulation NMS." This assumption may no longer hold true if the LPP proposal is approved.

Further, given the number of exchange licenses operated by a small number of exchange operators, the EDGA asymmetric delay is likely to be the first of multiple exchanges employing such a mechanism. The added complexity associated with execution of conditional quotes and the potential confusion caused by inaccurate prices in the SIP (albeit marked "manual") have the potential to harm market efficiency[7]. Given that approval of proposals like the asymmetric delay proposed by EDGA would effectively permit any substantially similar proposal by competing exchanges, the Commission should consider the impact on market quality and investor protection that would be caused if such a proposal was adopted by all or a substantial portion of the U.S. Equities market.

LPP is an Opaque Rebate

The EDGA LPP proposal is an opaque rebate to liquidity providers (and conversely cost to liquidity removers) that cannot be quantified. It affords liquidity providers an advantage insofar as it allows liquidity providers to avoid potentially adverse executions when prices move against the liquidity provider during the delay. Avoiding these adverse executions will improve the profitability of liquidity providers. While explicit rebates allow the Commission to understand the economic value of rebates in providing (or accessing) liquidity, advantages such as the LPP delay are not quantifiable *ex ante* by the Commission and the economic value of such advantages could far exceed the value of explicit rebates. The use of structural incentives such as LPP raises concern that transparent pricing will be replaced by advantages that are difficult or impossible to quantify. A shift from explicit rebates to such advantages could impact the efficacy of Rule 610T, the Transaction Fee Pilot. The potential for abuse of such advantages is a greater concern than explicit pricing proposals that can be effectively vetted by the Commission.

LPP is Designed to Circumvent the Quote Rule

LPP could constitute a violation of Rule 602(b) and, at best, it is designed to create a loophole around the rule. Rule 602(b) requires a broker or dealer to honor its quotes when an order is presented to trade with those prices. LPP is designed to delay the incoming order from being presented to provide the broker or dealer additional time to update its prices. The delay mechanism is designed to purposefully not present the order to the broker or dealer in order to allow it to not honor its quotation that was present when the exchange received and processed the incoming order. Providing the ability to back away from quoted prices and sizes, even in the absence of knowledge of an order to execute against the quote, will harm investors, increase the cost of finding liquidity, and negatively impact price discovery.

Conclusion

The EDGA LPP is designed to allow EDGA and its liquidity providers to view and respond to price discovery on competing markets during a 4 millisecond delay to marketable orders. The

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[7] This point is particularly important in light of EDGA's request for an exemption from Rule 610(e) of Regulation NMS that would allow it to lock or cross manual quotations on other exchanges. If additional exchanges adopt asymmetric delays similar to LPP and are granted the same exemption, it may lead to a significant increase in the number and duration of locked and crossed markets.

proposed LPP delay raises several issues regarding unfair competition among exchanges, discrimination among market participants, market quality, and investor protection. LPP will result in a burden on competition among exchanges as it will allow EDGA participants to free-ride on price discovery on competing exchanges. It is designed to unfairly discriminate in favor of members engaged in liquidity provision on EDGA relative to members that access displayed prices on EDGA. This asymmetric delay will harm market quality by enabling conditional and inaccurate quotes that, while present when EDGA receives an order, may be canceled during the LPP delay. This delay acts as an opaque rebate to EDGA liquidity providers that cannot be effectively evaluated by the Commission. Finally, the delay is inconsistent with SEC Rule 602 and is, at best, intended to circumvent the rule.

Please contact me if you have any questions or would like to discuss this letter.

Sincerely,

/s/ Adam Nunes

Adam Nunes
Head of Business Development