March 31, 2023

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

Re: **File No. S7-29-22; Release No. 34-96493; Disclosure of Order Execution Information**

File No. S7-30-22; Release No. 34-96494; Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders

File No. S7-31-22; Release No. 34-96495; Order Competition Rule

File No. S7-32-22; Release No. 34-96496; Regulation Best Execution

Dear Ms. Countryman:

Hudson River Trading LLC[1] ("Hudson River Trading") appreciates the opportunity to comment to the Securities and Exchange Commission ("Commission") in response to the Commission's proposed rules regarding Disclosure of Order Execution Information; Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders ("Minimum Pricing Increment proposal"); Order Competition Rule; and Regulation Best Execution.

Taken together, these proposals represent a profound change to the functioning of the US equities markets. Individually, the Minimum Pricing Increment proposal and the Order Competition Rule proposal each represent the most significant changes to the US equities market since the adoption of Regulation NMS. Each of these proposals will impact the others; however, the Commission did not consider the impact that each of the proposals may have on the others in its analysis. Given the potential harm to market quality and resilience the proposals may have, we believe that the Commission should proceed in a sequenced and incremental manner both across the proposals and within proposals to ensure that changes to the markets associated with previously implemented policies are taken into account prior to moving forward with additional changes. Specifically, Hudson River Trading recommends that the Commission adopt the Disclosure of Order Execution Information proposal and then, as a second step, the Minimum Pricing Increment proposal, in each case after considering input from investors and market

[1] Hudson River Trading is a multi-asset class quantitative trading firm that provides liquidity on global markets and directly to its clients. Its two broker-dealer subsidiaries (HRT Financial LP and HRT Execution Services LLC) are registered with the Commission pursuant to Section 15 of the Exchange Act and are both members of FINRA and various exchanges.

participants. The disclosure enhancements of the Disclosure of Order Execution Information proposal should result in order routing optimization by investors due to the “apples-to-apples” means of comparing execution quality and will provide benchmarking information that will allow market participants to compare retail execution quality before and after other proposals are implemented. Following any subsequent, phased-in implementation of the Minimum Pricing Increment proposal and allowance for a reasonable evaluation period to assess and thoroughly understand its impacts on market quality and market structure, we believe that any further rulemaking should be reproposed, to the extent necessary.

Disclosure of Order Execution Information

Hudson River Trading supports the Commission’s proceeding with its proposal on the Disclosure of Order Execution Information while considering feedback from market participants. The greater transparency provided by more robust and uniform execution quality metrics will allow investors to make better-informed decisions when choosing brokers and serve as a foundation for assessing the impact of any subsequent changes to U.S. equity markets.

Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders

Round Lot Sizes

Hudson River Trading supports the Commission accelerating the implementation of revised round lot definitions[2]. Reducing the round lot size for high-priced stocks will enhance transparency and narrow the National Best Bid and Best Offer (“NBBO”) spread by incorporating interest that is currently considered odd lot interest. It will additionally make the notional size associated with the NBBO more uniform across stock price levels. However, with the reduction in round lot sizes, we do not believe the benefit of accelerating the implementation of the inclusion of odd lot information on the Securities Information Processor (“SIP”) or the creation of an odd lot NBBO is justified. Whereas the SIP currently supports different round lot sizes, the odd lot changes will be expensive and time-consuming to implement with limited benefit. Finally, we believe the round lot size change interval should be aligned with the minimum pricing increment changes at a quarterly or semi-annual cadence.

Minimum Pricing Increments

Hudson River Trading generally supports the Commission’s proposed changes to minimum pricing increments. However, we believe that any such changes should be implemented in an incremental manner that provides for evaluation of each implementation phase to ensure that the finer pricing increment has resulted in an improvement in market quality[3]. Simply put, the

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[2] *See* Rule 600(b)(82).
[3] Appropriate market quality measures would include Quoted Spread, Effective Spread, Quoted Depth Near the Inside accounting for the change in minimum price variation, and execution cost for parent orders.

outcome of the proposal is not knowable until it is implemented, so it is important that the Commission be able to evaluate and alter the parameters to the extent the proposed parameters result in a harm to market quality.

Hudson River Trading generally agrees with the Commission's goal to implement a minimum pricing increment regime that covers both quoting and trading and is uniform across market center types. We further believe that the Commission's framework for determining the appropriate minimum pricing increment based on the displayed spread observed in the market is a reasonable approach that balances the complexity of having multiple tick sizes with the potential for market quality improvements of tailoring tick sizes based on the characteristics of securities. We also agree with the Commission's approach that seeks to balance the risk that increments are set too small, which could harm displayed liquidity and increase stepping ahead, with the risk that increments are set too wide, which could lead to higher costs for investors.

The current regime of having uniform requirements for "accepting, ranking, or displaying" orders has functioned well for trading on exchanges and for the overall market structure. Various commenters[4] have proposed a regime that provides for different quoting and trading increments (e.g. $0.005 increment for quoting and $0.001 increment for trading) that are uniform across market center types. We are concerned that such a regime could harm market quality with respect to on-exchange trading, which could lead to wider spreads that are used by off-exchange market centers. Specifically, Hudson River Trading is concerned that this proposed regime would allow market participants to submit non-displayed orders on exchanges at price points that would not be permissible for displayed orders. This ability to step ahead of displayed orders would reduce the incentive to post displayed orders. Unlike in the Commission's proposal, a market participant would be unable to narrow the NBBO by submitting a displayed order at the finer increment, which eliminates the benefit of finer pricing increments while preserving the downside of possible stepping ahead.

The Commission's proposal appears to target a "spread leeway,"[5] or number of open ticks, of approximately 3 to 7 ticks depending on the minimum pricing increment. We believe this is a reasonable spread leeway to target, as it seeks to ensure that there are open price points that will permit meaningful price improvement for retail investors. If the Commission were to target a lower spread leeway, it might result in price points that are too coarse for price improvement between the midpoint and full spread, which may necessitate setting different quoting increments and trading increments.

We believe that changes to minimum pricing increments should occur no more frequently than quarterly or semi-annually and that the corresponding evaluation period should be the full

[4] *See* Letter to Vanessa Countryman, Secretary, Commission, from Michael Blaugrund, Chief Operating Officer, NYSE, Jason Clague, Managing Director, Head of Operations, Charles Schwab & Co., and Joseph Mecane, Head of Execution Services, Citadel Securities, dated March 6, 2023. (https://www.ice.com/publicdocs/nyse/Joint_Consensus_Position_Letter_to_the_SEC.pdf)

[5] Spread leeway is equal to (Average Spread / Minimum Pricing Increment) - 1.

quarter or six-month period rather than, as proposed, only during the final month of the relevant evaluation period. As stated above, we believe the frequency of any potential minimum pricing increment changes should be aligned with round lot size changes. Changes to the round lot and minimum pricing increment will impact market dynamics and will require adjustments by market participants to respond to the new market conditions in the subject securities. We believe that having two to four adjustments per year strikes the appropriate balance between having the optimal round lot and minimum pricing increment with reducing the time that market participants are adjusting to the changes.

Access Fees

As proposed, the access fee caps vary significantly as a percent of the minimum pricing increment – from 50% of the minimum pricing increment at the $0.001 and $0.002 level down to 10% of minimum pricing increment at the $0.01 level. At 50% of the minimum pricing increment, a round trip buy and sell trade could result in access fees equal to the spread. Further, some markets currently offer rebates for accessing or providing liquidity that are equal to or greater than the access fee cap of $0.003. We are concerned that at 50% of the spread, rebates of greater than half of the minimum pricing increment could lead to market distortion. We suggest that the Commission adopt an access fee cap that is a uniform percentage of the minimum pricing increment. Given the current market convention, we believe this should be set to a maximum of 30% of the minimum pricing increment.

Order Competition Rule

If adopted, the proposals related to enhancing Order Execution Information and the Regulation NMS changes related to round lots and minimum pricing increments will have a profound impact on market function. As such, we believe that the impact of such changes should be evaluated before further market structure changes, such as the Order Competition Rule, are adopted. In addition, it is important to recognize that the current market structure for retail order execution has evolved over decades to meet the needs of retail brokers and investors. This structure delivers excellent market quality for investors; replacing it with a rigid, experimental auction model that has not been attempted in the competitive market is unwarranted and risks resulting in unintended consequences, to the detriment of retail investors.

As the Commission notes, retail brokers currently route the majority of their marketable orders to wholesale market makers for execution. These relationships ensure accountability for execution quality with respect to each individual order as well as in aggregate across orders. Hudson River Trading is a new entrant competing to provide liquidity to retail brokers. In our experience, retail brokers seek to partner with market makers that provide liquidity across all US equities and that ensure a high standard of execution quality in liquid and less liquid securities[6] as well as across various order sizes and order types. The Commission noted in the proposed rule that retail order flow generally results in less adverse selection for liquidity providers. While we agree with the Commission, the reduced degree of adverse selection is what drives the ability for liquidity providers to provide price improvement relative to the NBBO to retail investors. However, it is important to note that the lower adverse selection is in aggregate and that individual orders and orders in some securities may be difficult to execute or have a high degree of adverse selection that could result in a materially worse outcome under the auction proposal. We are concerned that, if adopted, the Order Competition Rule would harm execution quality and consistency for retail investors. If the Order Competition Rule were to be implemented, market makers may choose to focus on more liquid stocks to the detriment of market quality in less liquid securities. We believe the Commission failed to consider the benefits the existing structure brings to investors and retail brokers by providing an incentive to make markets in stocks across the liquidity spectrum and failed to appropriately consider the potential harm of failed auctions.

Regulation Best Execution

As stated above, Hudson River Trading anticipates that enhanced Order Execution Information and Regulation NMS changes related to round lots and minimum pricing increments will result in significant changes to market structure. Given that best execution is covered by FINRA's existing rule and accompanying guidance, any further proposals such as Regulation Best Execution should be reproposed following a careful and thorough evaluation of the revised market dynamics. Otherwise, these proposals may need to be immediately revised. For example, the Regulation Best Execution proposal has a heavy focus on the availability of midpoint executions. It does not contemplate that many midpoint executions may be available because many stocks are constrained by the one cent minimum pricing increment where the midpoint acts as a permissible finer pricing increment. In a market with more granular tick sizes, alternative approaches to assessing best execution may prove more appropriate.

Conclusion

Hudson River Trading appreciates the opportunity to submit these comments and would be pleased to meet with the Commission to further discuss them or to respond to any questions.

Sincerely,

/s/ Adam Nunes

Adam Nunes

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[6] This dynamic is similar to the allocation of Designated Market Maker assignments on NYSE as well as certain pricing programs, such as Nasdaq's Qualified Market Maker program, that seek to create incentives for providing liquidity in less active securities by grouping them with more active securities.