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

Re: Order Competition Rule (File No. S7-31-22)

Dear Ms. Countryman:

Jane Street Capital, LLC (“Jane Street”) appreciates the opportunity to provide comment on proposed Rule 615 of Regulation NMS, also entitled the Order Competition Rule (“Proposal”).¹ Among other things, the Proposal would require most retail marketable orders to be exposed to the market through auctions, subject to certain conditions, prior to being able to be internalized.

Jane Street is a global market maker and trading firm that trades across a wide range of asset classes, including equities, bonds, options, currencies, commodities and futures. We make markets continuously on more than 200 trading venues in over 40 countries around the world. Jane Street makes markets not only by buying or selling small quantities around the bid or offer, but by standing ready to provide deep liquidity in large size, both on exchange and in OTC markets. In the US, one of the many ways in which we provide liquidity is in our capacity as a wholesale market maker, wherein we handle orders from retail brokers in both NMS stocks and OTC equities. Our comments reflect our experience both as a wholesaler as well as a global market participant that is uniquely attuned to the impacts of market structure design decisions.

The Present Role of Wholesalers in the Equities Market

At the outset, it is worth highlighting that as the most recent sizable entrant into wholesaling, we can confirm there is vigorous price-driven competition for retail order flow. While we acknowledge that the costs to establish a wholesaling business are substantial, in our experience, retail brokers are willing to send order flow to a new entrant that is able to demonstrate it can provide competitive execution quality for their customers’ orders.

¹ Exchange Act Release No. 96495 (Dec. 14, 2022), 88 FR 128 (Jan. 3, 2023) (“Proposal”).

In addition, wholesaling encompasses an array of services to facilitate retail investor trading beyond principal execution and access to external markets. These services, which include handling of non-standard order types and on-demand client service to respond to unique inquiries and requests, all require significant technological resources and the involvement of numerous skilled personnel. Furthermore, wholesaling covers the entire universe of NMS stocks, including common stocks, exchange-traded products, rights and warrants, preferred stocks, ADRs, and other securities listed on stock exchanges. Thus, while we recognize that it is important to seek to optimize the structure of the equities market, we believe the value reaped by retail investors through wholesale market making should not be discounted.

Costs and Benefits of Establishing Mandatory Retail Auctions

The Proposal, whether assessed on its own or in concert with the other related proposals the Commission issued in December, represents a transformational change to the market and a fundamental shift from the Commission's historical approach to equity market structure.² We acknowledge that, in theory, executing most marketable retail orders in truly open auctions could lead to a more competitive execution for each individual order, resulting in some orders doing better and others doing worse than they would under the current structure. However, in practice, we have concerns about the methodology used to compute the likely aggregate benefit for retail investors and believe that substantial direct implementation costs have gone unquantified.

Benefits

The Proposal estimates that retail investors would receive \$1.5 billion annually in additional price improvement via the competitive auction mechanism compared to the existing marketplace.³ We believe this figure, referred to as the "competitive shortfall rate," may overstate the potential benefits that could accrue to retail investors through the use of auctions.

The competitive shortfall rate is the difference in fee-adjusted realized spreads for marketable orders executed on exchanges and realized spreads for marketable orders executed by wholesalers.⁴ The Commission concludes that this calculation reflects the amount of additional price improvement that would flow to segmented orders in auctions (as opposed to such orders being executed by wholesalers). In order to draw this conclusion, the Proposal relies on two core assumptions: 1) payment for order flow (PFOF) currently paid to retail brokers would be eliminated without introduction of new charges or reduction in services, and 2) auction responders would provide sufficient price improvement in retail auctions such that the

² The Commission's historical approach to market structure, consistent with the Congressional directive to facilitate the establishment of a national market system, has not included specifying the precise form or structure of the market. *See, e.g.*, Exchange Act Release No. 15671 (Mar. 22, 1979), 44 FR 20360 (Apr. 4, 1979) ("However, the Congress did not intend that the Commission dictate the ultimate configuration of the national market system or, through regulatory fiat, force all trading into a particular mold.").

³ *See* Proposal, 88 FR at 130. We recognize that the Commission acknowledges that a range of factors and assumptions could affect its estimate of potential benefits to investors.

⁴ *See id.* at 206.

responders' resulting realized spreads would be commensurate with those of resting orders on exchanges, as opposed to the current PFOF-adjusted realized spreads of wholesalers.⁵

With respect to PFOF, the Commission did not reduce its calculation of wholesaler realized spreads by the amount of PFOF paid to retail brokers because "PFOF, while a cost to wholesalers, is not a cost to investors."⁶ However, investors will ultimately have to pay for the beneficial services provided by retail brokers, such as their customer-facing systems and interfaces, the management and analysis of customer order execution quality, and clearing and custodial services. Insofar as the Proposal shifts the recovery of these costs to other types of charges or leads to reduced services, this should substantially decrease how much true investor benefit should be ascribed to this effect.

The Proposal suggests that the transaction costs for marketable orders currently executed on exchanges are comparable to the anticipated transaction costs for retail orders that would be executed in auctions. However, in order for this comparison to hold, we believe that two important premises would need to both be true. First, the set of marketable orders currently executed on exchanges would need to be comparable to the set of marketable orders of retail investors currently sent to wholesalers.⁷ Second, the participants resting orders on exchanges would need to be representative of market participants that would provide liquidity to retail orders in the auctions.

As to the first premise, while marketable orders currently executed on exchanges and marketable orders currently executed by wholesalers may have similar characteristics (such as symbol, price or size), we do not believe that they are comparable for purposes of analyzing transaction costs. The participants sending marketable orders to execute against orders resting on exchanges are often sophisticated traders that maintain proficient systems for pricing securities and routing orders. The negative realized spreads observed for marketable orders executed on exchanges thus reflect that, on average, marketable orders sent to exchanges are more informed than the resting orders they trade against.⁸ This would not appear to be the case with respect to retail orders sent to wholesalers. As such, we see no reason to believe that retail orders submitted to an

⁵ *See id.* (explaining that the competitive shortfall rate can be viewed as "the difference in marginal profits to liquidity provision on and off-exchange"). The Commission uses realized spreads as a proxy for the potential profit that a liquidity provider may earn on a trade. *See id.* at 188. The Commission explains that wholesaler realized spreads need to be adjusted for the PFOF they pay to estimate wholesaler marginal profit. *See id.* at 190. However, in the competitive shortfall rate, the Commission chose not to adjust wholesaler realized spreads for the PFOF paid to retail brokers. *See id.* at 206. Thus, wholesaler realized spreads, as used in the competitive shortfall rate, equal PFOF paid to retail brokers plus wholesaler marginal profits. For on-exchange trades, the Commission states the marginal profit required to incentivize liquidity provision on exchanges' order books can serve as a proxy for the estimated transaction costs of orders to be exposed in auctions. *See id.* Accordingly, in representing the difference between wholesaler realized spreads and on-exchange realized spreads, the competitive shortfall rate can be viewed as being composed of: PFOF paid to retail brokers plus wholesaler marginal profits minus transaction costs for on-exchange marketable orders (which it believes should reflect transaction costs for segmented orders in auctions).

⁶ *See id.*

⁷ As detailed in the Proposal, the actual relevant set of orders for this analysis are marketable orders under \$200,000 in value that do not have specific instructions impacting their handling (e.g., stop orders or post-only orders). *See id.* at 192.

⁸ *See id.* at 189-194.

auction would be likely to trade as profitably as the average marketable order sent to an exchange order book.

As to the second premise, we believe the negative fee-adjusted realized spreads for on-exchange trades reflects that orders resting on exchanges are not representative of the universe of orders that would respond to retail order auctions. A wide variety of market participants currently post resting orders on exchanges, some of whom may be insensitive to short term trading marks. The methodology's implied assumption is that this broad range of market participants would compete to provide liquidity to auctions of segmented orders and would be willing to do so at the same negative fee-adjusted realized spreads at which they currently trade. However, we believe it is unlikely that the subset of exchange resting orders that are insensitive to short-term marks would manifest as competitive auction responses; the likely need to price millions of individual auctions daily, on a variety of venues with unique protocols, and deliver a competitive response inside of 100-300 milliseconds seems a high bar. At the Proposal's expected levels of price improvement to be derived from the auctions, we also find it unlikely that orders resting on exchanges will get swept into the auctions any more frequently than they currently interact with retail orders by way of wholesalers accessing external liquidity.

We expect that the primary participants providing liquidity to retail orders in auctions will most likely be existing wholesalers or other proprietary trading firms. We do not think realized spreads of on-exchange trades are a reasonable estimate of those firms' liquidity provision costs. Rather, we expect the realized spreads for auction responders would look similar to those of existing wholesalers. In our experience, as previously stated, wholesaling is already an intensely price-competitive business. The PFOF-adjusted realized spreads for orders sent to wholesalers of less than 0.5 bps by either of the Commission's analyses provide evidence for this contention.⁹ In fact, these figures overestimate wholesaler net profits because, as noted by the Commission, realized spreads (as marked to a 1 or 5 minute NBBO midpoint) do not account for various fixed and marginal costs of trading, for example: costs of closing the resulting open positions, clearing costs, financing costs, Section 31 and TAF fees, and technology costs.¹⁰ When responding to segmented order auctions, we believe liquidity providers will seek to recover their internal costs of providing liquidity, reducing this anticipated benefit.

Therefore, because both the marketable and the resting side of trades in the proposed auctions will have different characteristics, and participants, from what is currently observed on exchanges, we expect that the competitive shortfall rate overstates the potential benefit that could reasonably be expected to accrue to retail investors.¹¹

⁹ See *id.* at 190, Table 6 & 192, Table 7.

¹⁰ See *id.* at 188, n. 426 (explaining that realized spreads "do not measure the actual trading profits that market makers earn from supplying liquidity" because they do not account for a variety of relevant costs).

¹¹ In addition, separate from establishing a reasonable framework for measuring the potential benefits that could accrue from auctions, specific aspects of the Proposal may confound those potential benefits. For example, the Proposal leaves certain important details concerning the structure of the auctions up to the operators. Even seemingly minor aspects of auction design can have material impacts on auction performance. An estimate of potential benefits absent a complete accounting for all the details of the auctions is likely to overstate the effects of competition on outcomes.

Costs

The Proposal provides an estimate of \$50 million for PRA compliance costs and offers a qualitative discussion of a wider range of other potential costs.¹² We recognize the difficulty of quantifying costs associated with various aspects of the Proposal, which routinely notes the uncertainty regarding various possible changes in the market should the Proposal be adopted.¹³ We agree. Different market participants are likely to respond to the Proposal's many complexities in different ways. Nevertheless, uncertainty of outcomes should not result in avoiding the quantification of material costs.

Quantification of potential costs, particularly fixed costs, is important to contextualize fairly the potential benefits that may accrue from auctions. The Proposal would impact every participant in the US equities market. Among other things:

- Exchanges and ATNs that choose to offer auctions would not only need to build on-demand auction systems and integrate them into their continuous trading facilities, but would also need to make related enhancements to their order entry protocols to account for changes such as identifying customer orders to implement the Proposal's execution priority framework.
- Retail brokers would need to account for significant changes to their systems for handling and routing their customers' orders.
- A wide range of broker-dealers, including proprietary firms, agency brokers, and large banks, would need to develop new systems and reconfigure existing ones to price and respond to auction messages as well as account for their impacts on market functioning.

We believe the cost-benefit analysis should attempt to quantify all of these fixed costs.

To put a finer point on this, consider the Proposal's potential impact to the handling and routing of marketable retail orders, which may be the most stark example of the importance of quantifying relevant costs. Currently, wholesalers provide these services to retail brokers as part of their bundled offering. The Commission acknowledges that under the Proposal retail brokers may have to absorb the explicit costs of handling and routing their customer orders, either from an outsourced provider or by incurring the costs to assume these functions.¹⁴ But the Commission's analysis does not estimate the magnitude of these costs.

For example, the Commission estimates that 157 brokers would be originating brokers and 25 brokers would serve as routing brokers.¹⁵ A prudent approach to crafting a fair economic analysis would be to consider the potential costs of: (1) all of these originating brokers deciding to route their customers' order directly into the market, (2) some of these originating brokers routing themselves, while others use outsourced providers, and (3) all of these originating brokers using outsourced providers to route orders. Based on our understanding of the

¹² See Proposal, 88 FR at 212.

¹³ See, e.g., *id.* at 203 (acknowledging considerable uncertainty in costs and benefits due to inability to predict how different market participants will adjust practices in response to the Proposal); 214 (noting uncertainty on how liquidity would be impacted by increased volatility within the context of auctions); and 225 (noting uncertainty on the extent to which routing services for retail orders would shift away from wholesalers).

¹⁴ See *id.* at 218.

¹⁵ See *id.* at 168.

technology and personnel costs necessary to develop and operate a comprehensive, high-performing routing system, we believe that the sum total of the explicit fixed costs for any of these options would be significant. Importantly, these routing systems would not just need to be configured to select a particular auction destination for each eligible order, but would also need to efficiently handle auctions that do not clear, regulatory halts, Limit Up-Limit Down plan implications, short sale restrictions, and any non-standard order types that retail brokers offer their customers.

The Commission rightly notes that it is difficult to assess how various market participants may respond to the Proposal. Given the complexity and the significant changes it would bring to the market, we are concerned that the potential costs would likely be far greater than the Proposal indicates.

Availability of Midpoint Liquidity

The Proposal also includes a CAT-based analysis of available midpoint liquidity on exchanges and ATSS at the time of certain internalized marketable retail orders.¹⁶ The Commission finds that 75% of all shares internalized by wholesalers at prices inferior to the NBBO midpoint could have been satisfied by available midpoint liquidity. This implies¹⁷ that at least half of all shares from marketable retail orders arrive to a “locked” market at midpoint for sufficient size.¹⁸

This analysis differs dramatically from our experience attempting to access midpoint liquidity while handling retail order flow. Jane Street’s wholesaling system sources midpoint liquidity from 19 external venues: 12 exchanges and 7 major ATSS that accept midpoint interest. From our internal data, we estimate that approximately 10% of marketable retail shares we currently receive could be filled at midpoint if externally routed.

Unfortunately, due to the necessity of using non-public CAT data to perform the Commission’s analysis, we do not have the means to reasonably reconcile our internal data against the Proposal’s contentions. We welcome further discussion of these observations in order to better understand the differences.

Strengthen Retail Liquidity Programs

While we remain skeptical that a substantial portion of the estimated competitive shortfall would materialize as an aggregate benefit to retail investors under the Proposal, we agree that certain modifications to equity market structure could support the Commission’s goal of enhancing order-by-order price competition. In particular, we recommend the Commission strengthen the existing exchange retail liquidity programs, both those eligible to quote in \$0.001 increments as well as those offering midpoint pricing, by permitting exchanges to display the size and price of

¹⁶ See *id.* at 211, Table 20.

¹⁷ We assume that available external midpoint liquidity is not negatively correlated with wholesalers choosing midpoint-or-better internalization prices, and that arriving marketable retail order direction is not positively correlated to available midpoint liquidity.

¹⁸ This is theoretically plausible but does not align with our experience trading US equities, especially for stocks priced greater than \$100, which Table 20 shows as having the highest midpoint availability rates.

these quotes. This increased transparency could also be accompanied by the explicit inclusion of such liquidity in obligatory order-by-order best-execution analysis for eligible orders.

Together, these measures could serve as an effective backstop to ensure that each individual retail order that is ultimately internalized is executed at a price at least as good as publicly available liquidity for marketable retail order flow. Notably, such a modification could be implemented at a small fraction of the cost of the Proposal and without the disruption and fragmentation that would be associated with potentially-overlapping periods of auction dissemination and resolution. In particular, we believe strengthened retail liquidity programs could represent a more straightforward opportunity for institutional investors to interact with marketable retail orders, as opposed to requiring such interest to regularly respond to auctions.

Conclusion

While the US equities market can currently be characterized as fair and efficient, its dynamic and complex nature invites a continual assessment of whether its structure continues to best serve investors. However, broad overhauls to market structure, no matter how well intentioned, can ultimately have deleterious effects on market functioning and therefore merit a rigorous and neutral cost-benefit analysis. In this instance, it is our opinion that the Proposal would likely deliver substantially less aggregate benefit to retail investors than is suggested, at material cost to all market participants.

Jane Street thanks the Commission for its consideration of these comments. To the extent it would be helpful, we would be happy to provide further insight into them.

Sincerely,

/s/ Calvin Hayes

Calvin Hayes