WE THE INVESTORS

March 30, 2023

By Email

Vanessa A. Countryman
Secretary
U.S. Securities and Exchange Commission
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Washington, D.C. 205499–1090
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Re: Rule Proposal No. 34-96494; File No. S7-30-22 Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders

Ms. Countryman:

We The Investors ("WTI")[1] appreciates the opportunity to comment on the U.S. Securities and Exchange Commission's (the "SEC" or "Commission") Proposal on Regulation NMS: Minimum Pricing Increment, Access Fees, and Transparency of Better Priced Orders (the "NMS Proposal").

We The Investors is organized around five key principles as laid out in our Investors' Bill of Rights[2]. These include Transparency; Simplicity and Fairness; Choice and Control; Best Execution; and Better Settlement and Clearing. This comment letter will focus on three of those principles - Transparency; Simplicity and Fairness; and Best Execution.

My name is Dave Lauer and I am the co-founder of both We The Investors and Urvin Finance. I have been involved with equity market structure since 2005, first developing technology for high-frequency trading systems at Tervela, then as a quantitative research and analyst developing high-frequency trading strategies, at both Citadel Investment Group and Allston Trading. I then worked at IEX on technology and exchange design and worked with Better Markets advocating for market structure changes. This included testifying before the US Senate Banking Committee twice and presenting to the SEC and CFTC on multiple occasions. I co-founded the Healthy Markets Association and worked with large asset managers on issues

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[1] We The Investors is a grassroots advocacy campaign launched in March 2022. WTI is built by, and for, individual investors. Our mission is to educate individual investors in order to empower them to represent themselves on market structure issues. We are supported by industry firms and over one hundred thousand individual investors.
[2] The Investors' Bill of Rights can be accessed at: https://www.urvin.finance/advocacy

around best execution and counterparty due diligence. I sat on the NEO exchange board in Canada and chaired the Regulatory Oversight Committee for 7 years. I currently volunteer on FINRA's Market Regulation Committee. I fully endorse this letter from We The Investors, and helped to author it. It is informed by my nearly two decades of experience in markets and the many perspectives that I have operated from – in high-frequency trading and technology development, stock exchange design and governance, order routing and transaction cost analysis for asset managers, regulatory and enforcement assistance, and finally in my recent role working with individual investors.

The Commission has rightly identified several problems with our current market structure. The NMS Proposal is poised to address a number of these problems, including an artificially wide quote and trade increment, an artificially high access fee cap, and the inadequacy of exchange efforts to deliver on the previously approved Market Data Infrastructure Rule ("MDI Rule"). We The Investors fully supports the Commission's goals and the Commission's approach to these problems. The quote and trade increments in U.S. markets must be fixed. The access fee cap is a government price control that distorts markets and fee structures, and must be updated. The MDI Rule included important reforms that must be implemented.

While we support the Commission in making these changes, we have several recommendations for improvements we would like to see to the final rules. Our recommendations are well in-line with those of other commenters, and we hope that the Commission will strongly consider them.

Tick Sizes

The quoting and trading increments in markets have long been a topic of debate, discussion and reform. In fact, one of the most important changes in markets over the past decades was the transition from quoting and trading in fractions of a dollar to quoting and trading in pennies. This change, more than any other, appears to have had the most significant impact on market quality. However, as markets have grown more efficient and computerized, the opportunity to continuously improve them has presented itself. Over the past decade, a debate has raged in markets - should the one-size-fits-all approach to quoting and trading increments be changed? Our answer is unequivocally yes.

WTI has long recommended a holistic approach to solving the problems in markets. In our 2022 presentations[3] to SEC Commissioners and staff on the problems with internalization[4] and payment for order flow, we shared multiple suggestions for reforms that would result in simpler, more efficient and more liquid markets. One of those suggestions was to support a proposal

[3] We The Investors, "Sec Letter #01: payment for order flow (PFOF)" Urvin Finance, (May 27, 2022), Available at https://www.urvin.finance/advocacy/wti-sec-pres-01/

[4] Griffin, Kenneth, "Comment Letter–Re: Regulation NMS - File No. S7-10-04", Securities and Exchange Commission, Available at https://www.sec.gov/rules/proposed/s71004/s71004-436.pdf

Note: Apropos to nothing in this section, please note that even Ken Griffin has said that "Internalization is one of the greatest threats to price discovery in financial markets."

from Nasdaq called the "Intelligent Tick"[5] proposal. Nasdaq consulted a broad, diverse group of market participants to develop this proposal. The result is an approach that would create dynamic quoting and trading increments of $0.005, $0.01, $0.02, $0.05, $0.10, and $0.25 based on the duration weighted average quoted spread of each symbol. We still support this approach, and believe it will bring the most benefits to U.S. market quality.

We are concerned that the Commission's proposal of quoting and trading increments as small as $0.001 and $0.002 will result in serious problems, primarily flickering quotes, reduced liquidity and increased fragmentation. The Commission believes that targeting 4 to 8 ticks within the spread will lead to optimal outcomes. However, we agree with other commenters, who argue that the sweet spot is more likely 2 to 4 ticks within the spread. This position is supported by recent research from the Commission's Division of Economic Research and Analysis ("DERA").

We do not believe it beneficial to markets to have quote and trade increments any lower than $0.005, however this is not a position set in stone. A far more prudent approach would be to move to a dynamic tick regime as suggested in the "Intelligent Tick" proposal, with a $0.005 lower bound. Subsequent decisions should be based on measurement of the results. If indeed a class of stocks continue to be tick-constrained at that lower bound, it may make sense to create one more bucket, at the $0.0025 level.

The Case For Wider Ticks

We were disappointed to read in the NMS Proposal that wider ticks for non-tick constrained names were not included. The Commission appeared to make an excellent case in the NMS Proposal for wider ticks for non-tick constrained stocks, stating, for example, "when stocks are tick-constrained the pricing efficiency made possible by a smaller tick improves liquidity, and for stocks with wider spreads a smaller tick harms liquidity by making individuals less willing to post displayed liquidity due to complexity and the risk of pennying."[6] This point makes a simple and clear case that tick size needs to be optimized for all stocks, not just those that are tick-constrained. Stocks that trade with wider spreads suffer from a smaller tick size, as the Commission makes clear.

The DERA study cited in the NMS Proposal also makes clear that the Tick Size Pilot ("TSP") and the resulting analysis were flawed. DERA came to the conclusion that "the lack of consistency in the TSP literature for non-tick constrained stock as resulting from existing studies treating all non-tick constrained stocks the same in their empirical analysis."[7] By indiscriminately

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[5] Zecca, John, A., "File No. 4-756, Request to amend Rule 612 of Regulation NMS to adopt intelligent tick-size regime, Nasdaq,(Dec. 16, 2019), available at https://www.sec.gov/rules/petitions/2019/petn4-756.pdf

[6] NMS Proposal at 208

[7] Barardehi, Yashar H., et al, "Tick Sizes and Market Quality: Revisiting the Tick Size Pilot", Securities and Exchange Commission, (November 28, 2022), Available at https://www.sec.gov/files/dera_wp_ticksize-pilot-revisit.pdf

widening tick sizes for all names, the TSP was fatally flawed. The Commission should not allow this perception of the TSP to deter it from implementing the appropriate tick size solution.

The Commission's own language in the NMS Proposal makes a conclusive case for larger tick sizes:

> For stocks with very wide spreads, reducing the tick size appeared to harm liquidity, which is consistent with fragmentation and pennying being the prevailing effect. The theoretical discussion above suggests that executing an order may become more complex with a smaller tick size – meaning it may take visiting more venues as well as across more price levels to execute an order with a smaller tick size.[8]

The Commission goes on to say:

> Our analysis suggests that reducing the tick size also reduced the total depth available deeper in the book with the coefficient for bin 4 – i.e., those with the widest spreads – being the largest in magnitude. This finding is consistent with a smaller tick discouraging the posting of displayed liquidity due to pennying concerns for stocks with wide spreads.[9]

These are very important points.

Stocks with tick sizes that are too small (which is the case for those stocks that trade at a very wide spread today, and have too many quoting and trading increments within that spread) are less liquid, more prone to fragmentation and pennying, and difficult to trade for both individual and institutional investors.

It simply makes no sense for the Commission to address this issue on the tick-constrained side of the spectrum while ignoring the other side. Market participants have long lamented the one-size-fits-all nature of our markets, which harms market quality in less liquid, smaller companies. The Commission has an opportunity to address this issue in a robust, dynamic way.

What's The Sweet Spot?

We agree with other commenters that the Commission's target of 4 to 8 ticks within the spread is not the optimal target. Instead, we believe that 2 to 4 ticks is the right number, based on a number of studies and submissions:

- Nasdaq has published some important and excellent data. This comes as no surprise. Nasdaq has been leading efforts to optimize tick sizes for years now, and we fully endorse their "Intelligent Tick" proposal. They have found:
    - Almost 3,000 stocks are "tick constrained" or "very tick constrained," while over 4,000 stocks trade with too many ticks.[10]

[8] NMS Proposal at 203
[9] NMS Proposal at 206
[10] Mackintosh, Phil, "The Economics of Tick Regimes", Nasdaq, (March 16, 2023), Available at https://www.nasdaq.com/articles/the-economics-of-tick-regimes

    - Moving to a 1.6 cent spread cutoff for a half-cent tick size and an 8 cent spread cutoff for a 5 cent tick size would dramatically reduce the number of stocks that are either tick constrained or that trade with too many ticks, and result in substantial cost savings for both individual and institutional investors.
    - Even for ETFs, some of which appear to be the most tick constrained stocks, "few ETFs may need less than a ½-cent spread" including SPY, "the most liquid stock in the world."[11]
- Pragma's comment letter provides excellent independent research to support 2 to 4 ticks, a half-cent minimum tick size and a wider tick for non-tick constrained stocks.
    - We fully agree with Pragma's assertion that the Commission must "[a]void tick sizes so small that they are 'economically insignificant' and undermine the price-time priority system, thus discouraging liquidity providers."[12]
    - Pragma's analysis shows that "buckets with spreads in that range of 4 to 8 ticks (blue) are worse, i.e., on average have wider spreads in basis point terms, than buckets with fewer ticks (so long as they are not tick-constrained)."[13]
    - We support Pragma's ideas for more precise, wider tick sizes, which echo the Nasdaq "Intelligent Tick" proposal as the optimal solution. However, a simple $0.005, $0.01 and $0.05 tick regime would provide most of the benefits.
    - We support Pragma's proposal for monthly updates.
- IEX
    - We agree with IEX that "there is substantial evidence and research supporting a tick regime that results in a tick to spread ratio of more than one but less than the 4 to 8 ticks targeted by the Commission's proposal."[14]
    - IEX cites a study by the French regulator AMF that examined "500 stocks over two months (December 2017-January 2018) around the time of the introduction of the new European tick regime under MIFID II."[15] This study found that "an appropriate tick size for very liquid securities corresponds to 1.5 to 2 ticks within the spread and for less liquid securities, between 1.5 and 5 ticks within the spread."[16] This matches what both Nasdaq and Pragma have suggested as well, and helps to inform our recommendation that the Commission should target 2 to 4 ticks within the spread, rather than 4 to 8.
- XTX
    - "In our experience, the optimal natural spread between the best bid and offer is two to four ticks. Markets exhibiting this characteristic tend to allow for material

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[11] Mackintosh, Phil, "The Impact of the SEC's Tick Regime Proposal on ETFs", Nasdaq, (March 23, 2023), Available at https://www.nasdaq.com/articles/the-impact-of-the-secs-tick-regime-proposal-on-etfs
[12] Mechner, David, "Comment Letter—Re: File No. S7-30-22; Release No. 34-96494; Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders", Pragma, (2023), Available at https://www.sec.gov/comments/s7-30-22/s73022-20160511-329131.pdf
[13] Ibid.
[14] Ramsay, John, "Comment Letter—Re: File No. S7-30-22; Release No. 34-96494; Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders", IEX Trading, (March 20, 2023), Available at https://www.sec.gov/comments/s7-30-22/s73022-20160364-328968.pdf
[15] Ibid.
[16] Ibid.

price improvement between the spread when such opportunities arise, while at the same time minimizing the noise associated with price flickering at the top of book because the minimum tick increment in this case is a material percentage of the transaction price."[17] Once again, XTX is aligned with Nasdaq, Pragma and IEX.

While other market participants agree with many of the above statements, we believe that these four entities represent a unique cross-section of the market, and we join them in their recommendations. The Commission should be targeting something close to 2 to 4 ticks within the spread for both tick constrained and non-tick constrained stocks.

Trading Increments

We urge the Commission to harmonize both quote and trade increments for all trading, both on- and off-exchange, except in limited circumstances as we will discuss below. For too long, off-exchange trading facilities have enjoyed a regulatory advantage over exchanges with no limitations on trading prices, which is the exact opposite of the incentives we should want in markets.

The Commission's top priority should be to incentivize on-exchange liquidity and a diverse, liquid NBBO. We agree with Pragma that "[a]llowing private off-exchange transactions on terms that are prohibited on-exchange manifestly creates an uneven playing field, harms investors in mutual funds and ETFs by denying them access to retail liquidity, and creates the conditions for wholesalers to extract rents in excess of the value they provide to market participants by exploiting conflicts of interest between retail brokers and retail investors."[18]

We agree with Ken Griffin, CEO of Citadel Investment Group, that "the potential long-term impact of internalization is so corrosive to our national market system that the Commission should take every possible step to curtail this business practice. Indeed, the dramatic fall in processing costs in recent years almost completely eviscerates the arguments in favor of internalization."[19]

We agree with the Commission that the trading increment should be the same as the quoting increment, with an exception for midpoint trades. If the Commission believes that a smaller trading increment for retail orders would be beneficial to markets and retail execution quality, we believe that a trading increment of $0.001 would make sense, but only for trades taking place either on-exchange or on facilities that have fair access requirements.

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[17] Gerko, A.; Amrolla, Z. & Swanson, E., "Comment Letter—Re: Roundtable on Market Data and Market Access; File No. 4-729", XTX Markets, (Nov. 26, 2018), Available at https://www.sec.gov/comments/4-729/4729-4681565-176567.pdf

[18] Mechner, David, "Comment Letter—Re: File No. S7-30-22; Release No. 34-96494; Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders", Pragma, (2023), Available at https://www.sec.gov/comments/s7-30-22/s73022-20160511-329131.pdf

[19] Griffin, Kenneth, "Comment Letter–Re: Regulation NMS - File No. S7-10-04", Securities and Exchange Commission, Available at https://www.sec.gov/rules/proposed/s71004/s71004-436.pdf

Access Fees

As discussed in a previous comment letter, we believe the Commission should eliminate all forms of Payment for Order Flow (PFOF), both Exchange PFOF and Wholesaler PFOF, and consequently eliminate the access fee cap. Absent this action, we support the reduction of the access fee cap to $0.001 per share. We also agree with IEX that "the Commission should prohibit or restrict the use of CADV-based tiers, which by their nature are highly anti-competitive and discriminatory."[20]

Market Data Infrastructure Rules

We fully support the Commission in accelerating the adoption of various components of the MDI Rule[21]. It should be clear from the Commission's experience with the MDI Rule that the Self Regulatory model is fundamentally broken, and we hope the Commission will, at some point in the near future, reform this part of the market.

Conclusion

The Commission has a unique opportunity to reform markets with the NMS Proposals. We urge the Commission to press forward with both the changes we have supported in this letter as well as our recommendations in our other comment letter on the NMS Proposals.

Sincerely,

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[20] Ramsay, John, "Comment Letter—Re: File No. S7-30-22; Release No. 34-96494; Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders", IEX Trading, (March 20, 2023), Available at https://www.sec.gov/comments/s7-30-22/s73022-20160364-328968.pdf

[21] Securities Exchange Act Release No. 90610 (Dec. 9, 2020), 86 FR 18596 (Apr. 9, 2021).