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March 31, 2023

Ms. Vanessa A. Countryman
Secretary
US Securities and Exchange Commission
100 F Street NE
Washington DC 20549-1090

Re: *Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders (File No. S7-30-22)*

Dear Ms. Countryman:

The Investment Company Institute[1] (ICI) is writing to respond to the Securities and Exchange Commission's (SEC or "Commission") rule proposal ("Proposal") to amend Regulation National Market System ("Regulation NMS") to establish variable minimum pricing increments ("tick sizes") for the quoting[2] and trading of NMS stocks[3] under Rule 612, reduce the existing access fee cap under Rule 610, and accelerate the inclusion of new round lot sizes and odd lot quote information into SIP core data via amendments to Rule 600, some elements of which the Commission previously adopted in its market data infrastructure (MDI) rule in 2020.[4] The Commission states that the Proposal would update Regulation NMS to better reflect today's equity trading environment and fulfill the statutory objectives of promoting efficient, competitive, fair and orderly markets under section 11A of the Securities Exchange Act of 1934 ("Exchange Act").

We support changes to the Regulation NMS framework that reflect developments in the US equity markets and address new issues that may impact their fair and orderly operation. In this

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[1] The Investment Company Institute (ICI) is the leading association representing regulated investment funds. ICI's mission is to strengthen the foundation of the asset management industry for the ultimate benefit of the long-term individual investor. Its members include mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and UCITS and similar funds offered to investors in Europe, Asia, and other jurisdictions. Its members manage total assets of $29.7 trillion in the United States, serving more than 100 million investors, and an additional $8.1 trillion in assets outside the United States. ICI has offices in Washington, DC, Brussels, London, and Hong Kong and carries out its international work through ICI Global.

[2] In this letter, we use the term "quotes" broadly to include bids or offers, orders, and indications of interest, consistent with the scope of Rule 612's application to trading interest.

[3] In this letter, we use the term "stocks" generally to refer to NMS stocks, which include ETFs.

[4] *Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders*, Exchange Act Release No. 34-96494 (Dec. 14, 2022), 87 Fed. Reg. 80266 (Dec. 29, 2022).

instance, however, we strongly caution against trying to adopt all the Proposal's extensive and complex market structure changes simultaneously or within a short time. Each of these proposed changes, while closely interrelated, represents a major change to equity market structure on its own and would significantly impact all market participants—both individual retail investors[5] and institutional investors such as ICI members, which represent retail investors—with unintended consequences to market liquidity for individual stocks and ETFs.[6] The Commission has not fully considered the effects of introducing all of these changes at once, nor has it, importantly, considered the implications of implementing this proposal in tandem with its other concurrent market structure proposals as well as other SEC rules that will affect equity market structure, including the impending transition to a T+1 standard settlement cycle.[7] In addition to the effects on equity market structure, implementing a significant number of changes in a short period of time would exponentially increase technological and operational complexity for funds and other market participants, which would inevitably increase the risk of market disruptions. Therefore, with respect to the reforms contemplated by the Proposal, we recommend that the Commission take an incremental approach, starting first with the dissemination of the new round lot sizes and odd lot information in NMS core data before pursuing other changes.[8]

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[5] In this letter, we refer to "individual retail investor" as natural persons who submit their own orders, excluding natural persons on whose behalf an investment adviser is trading through a discretionary advisory account owned by those persons. *See* Letter from Sarah A. Bessin, Deputy General Counsel, and Kevin Ercoline, Assistant General Counsel, ICI to Vanessa A. Countryman, Secretary, SEC, on *Regulation Best Execution and Order Competition Rule* at 8 (Mar. 31, 2023) ("ICI Comment Letter on Regulation Best Execution") (recommending that the SEC revise certain proposed definitions related to retail investors to distinguish treatment of orders based on who is submitting the order rather than the ultimate account holder).

[6] With respect to ETFs, these consequences may include, among other things, a reduction in ETF market making activity.

[7] *Shortening the Securities Transaction Settlement Cycle*, Exchange Act Release No. 34-96930, IA-6239 (Feb. 15, 2023), 88 Fed. Reg. 13872 (Mar. 6, 2023). We have emphasized that transitioning to a shorter standard settlement cycle will be a "complex, labor-intensive, and intricate undertaking that will require significant communication and coordination between all industry participants, including funds and fund advisers, broker-dealers, custodians, infrastructure providers, service providers, and others." Letter from Susan Olson, General Counsel, and Joanne Kane, Chief Industry Operations Officer, ICI to Vanessa A. Countryman, Secretary, SEC on *Shortening the Securities Transaction Settlement Cycle* at 2 (Apr. 11, 2022).

[8] Outside of the Proposal, we urge the Commission to propose a holistic, staged multi-year implementation schedule with respect to all four market structure proposals, starting with the enhancements to order execution information under Rule 605. *See* ICI Comment Letter on Regulation Best Execution at 17. We also remind the Commission that even as it has introduced multiple additional equity market structure proposals, it has yet to fully implement other outstanding important market structure reforms related to equity market data, including the 2020 NMS equity market data governance order and the final MDI rule. *See infra* note 18. ICI strongly supported these reforms. *See, e.g.*, Letter from Dorothy Donohue, Deputy General Counsel, ICI to Vanessa A. Countryman, Secretary, SEC, on *Notice of Proposed Order Directing the Exchanges and FINRA to Submit a New National Market System Plan Regarding Consolidated Equity Market Data* (Feb. 28, 2020); Letter from Dorothy Donohue, Deputy General Counsel, ICI to Vanessa A. Countryman, Secretary, SEC, on *Market Data Infrastructure* (May 26, 2020). We urge

We further emphasize that with any changes to equity market structure, the Commission must consider whether those changes would be good for *both* individual retail and institutional market participants, the latter of which manage a substantial portion of retail investors' assets. The Commission itself has long acknowledged that achieving the goals of the NMS framework "requires a balanced market structure that can accommodate a wide range of participants and trading strategies."[9]

Based on our longstanding concerns about the consequences of excessively granular quoting tick increments on funds and their advisors, we strongly oppose applying multiple new sub-penny increments, particularly $0.0010 and $0.0020, to a broad swath of stocks as proposed without conducting further research and analysis to support such granular levels. Instead, we recommend that the Commission adopt a more simplified approach at this time that establishes a half-penny quoting tick increment for tick-constrained stocks and use the resulting data to determine if a further reduction below a half-penny is warranted.

We further emphasize that making equity market structure changes that do not specifically address an existing market issue could introduce unnecessary market complexity and greater operational risk, which could impair market liquidity and increase investor costs. Therefore, we urge the Commission to apply the half-penny increment only to stocks that consistently demonstrate that they are "tick-constrained." To precisely identify which stocks qualify as such, we recommend a multi-factor approach that includes additional metrics in addition to time-weighted average quoted spread (TWAQS).

Finally, we offer additional thoughts and recommendations on other aspects of the Proposal, informed in part by our recommendation that the Commission adopt a more modest approach to reducing the quoting tick increments.

I. Background

ICI members, which include US-registered investment companies—mutual funds, ETFs, money market funds, and other funds that are regulated under the Investment Company Act of 1940, as amended ("1940 Act"), ("registered funds")—and non-US regulated funds[10] (together with registered funds, "regulated funds" or "funds"), along with their advisers, have a significant

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the Commission to continue its efforts to implement these reforms, including the portions of the governance order that the US Court of Appeals for the DC Circuit recently upheld. *See* The Nasdaq Stock Market LLC, *et al.*, v. Securities and Exchange Commission, No. 21-1167 (July 5, 2022).

[9] *See Concept Release on Equity Market Structure*, Exchange Act Release No. 34-61358 (Jan. 14, 2010), 75 Fed. Reg. 3593, 3596 (Jan. 21, 2010) ("2010 Concept Release").

[10] "Non-US regulated funds" refer to funds that are organized or formed outside the United States and are substantively regulated to make them eligible for sale to retail investors, such as funds domiciled in the European Union and qualified under the UCITS Directive (EU Directive 2009/65/EC, as amended), Canadian investment funds subject to National Instrument 81-102, and investment funds subject to the Hong Kong Code on Unit Trusts and Mutual Funds.

interest in equity market structure on behalf of the more than 120 million retail investors that rely on them to achieve their most important personal financial goals, such as saving for the purchase of a home, preparing for a secure retirement, or paying for higher education. In 2022, nearly 55 percent of US households—representing an estimated 71.7 million households and 120.5 million investors—were invested in registered funds.[11] Further, as of the end of 2021, registered funds held $16.8 trillion in US corporate equities, representing approximately 32 percent of the value of the publicly traded US equity market.[12] Therefore, as institutional investors representing these individual investors, ICI members support efforts to ensure that the US equity markets remain highly competitive, transparent, and efficient, and that the Regulation NMS framework continues to promote liquidity, transparency, and price discovery.

Since the adoption of Regulation NMS in 2005, the US equity markets have evolved significantly from manual trading to fast-moving, electronic trading characterized by low-latency, algorithmic trading across multiple market centers and a broad range of market participants of varying technological and operational capabilities. Trading now takes place through both displayed and non-displayed means across sixteen registered exchanges and numerous other off-exchange venues offering various order types, which generate multiple different data feeds with large volumes of quoting and transaction data that funds utilize to inform their trading strategies. Among other things, funds and their advisers value the ability to execute investment strategies and transact in large sizes with limited market impact, information leakage, and execution delays. Accordingly, ICI supports a regulatory framework that further promotes execution quality through deep and liquid markets as well as order interaction and displayed depth. Although today's market structure can pose some challenges for ICI members, they generally believe that the equity markets function reasonably well.

Notwithstanding ICI's view that the equity markets function reasonably well for funds, some challenges do persist. While technological innovations have increased trading efficiency and lowered trading costs, they have also led to greater market fragmentation and more overall market complexity. As a result, displayed liquidity and average execution size is generally lower, and trading large-sized orders, *i.e.*, blocks, has become more challenging than in the past.

II. ICI Supports an Incremental Approach to Amending Quoting Tick Increments

The Commission has long recognized that equity market structure issues are complex[13] and in the past has examined issues and developments concerning Regulation NMS in a measured and thoughtful way. Consistent with that approach, it should proceed with any reforms in a deliberate and incremental manner. Given the implications of any such reforms, the Commission has been

[11] *See* Sarah Holden, Daniel Schrass, and Michael Bogdan, Ownership of Mutual Funds and Shareholder Sentiment, 2022, *ICI Research Perspective* 28, no. 9 (Oct. 2022), *available at* www.ici.org/files/2022/per28-09.pdf.

[12] ICI 2022 Fact Book at ii, *available at* https://www.icifactbook.org/.

[13] *See* 2010 Concept Release at 3596 (stating that market structure issues "require a broad understanding of statutory requirements, economic principles, and practical trading considerations").

careful not to pre-emptively propose amendments to Regulation NMS without first seeking additional analysis, insight, or data from the public through various means.[14] We urge the Commission to proceed similarly in considering changes to the longstanding quoting tick increment of $0.01 under Rule 612, in particular by fostering industry dialogue and soliciting a diverse range of feedback from different market participants.[15] Such an approach is necessary due to the complex tradeoffs that the Commission has identified among pricing, liquidity, complexity, and price improvement with respect to tick size reform.[16] In our view, however, the Proposal departs from the Commission's historical practice by offering a comprehensive new tick increment regime, along with many other proposed changes, without a strong basis for support.

Given the permanent nature of the proposed changes, their likely significant impact, the current lack of meaningful data on these impacts, and the number of varying alternatives for adopting new quoting tick increments, we recommend a more measured approach. This would minimize the adverse consequences of adopting too many changes at once, while potentially allowing the Commission and market participants to isolate and understand the effects of each change. Rather than evaluate potential changes based on reasoned speculation and assumptions about the likely benefits, the Commission's decision-making should be informed by meaningful data that would demonstrate the actual market effects of each change and provide insight on what, or whether, additional changes are warranted.

As explained in more detail below, we recommend that the Commission first implement the new round lot sizes and odd lot information into NMS core data. Next, we support a half-penny

[14] The Commission has sought public input and information through different forums prior to proposing changes to Regulation NMS. For example, the Commission's 2010 concept release sought public comment and data to facilitate a broad review of equity market structure, upon the completion of which it would "determine whether there [were] any problems that require a regulatory initiative[.]" 2010 Concept Release at 3596. In other instances, the Commission has sought to conduct pilot programs that would help to inform whether to pursue rulemakings. *See, e.g.*, *Order Directing the Exchanges and the Financial Industry Regulatory Authority To Submit a Tick Size Pilot Plan*, Exchange Act Release No. 34-72460 (June 24, 2014), 79 Fed. Reg. 36840, 36844 (June 30, 2014); *Transaction Fee Pilot for NMS Stocks*, Release No. 34-84875 (Dec. 19, 2018), 84 Fed. Reg. 5202, 5292 (Feb. 20, 2019). Further, the Commission has relied on public forums to gather further information on various topics prior to proposing a rulemaking. *See, e.g.*, Roundtable on Market Data and Market Access (Oct. 25-26, 2018), https://www.sec.gov/spotlight/equity-market-structure-roundtables; Roundtable on Decimalization (Feb. 5, 2013), https://www.sec.gov/spotlight/decimalization.shtml. *See also* SEC Equity Market Structure Advisory Committee, https://www.sec.gov/spotlight/emsac/emsac-archives.htm.

[15] For example, the Commission held its 2013 Decimalization Roundtable—which explored the effects of a reduction in tick size resulting from the decimalization of quotes—based on Commission staff's recommendation that it "solicit the views of investors, companies, market professionals, academics and other interested parties on the broad topic of decimalization . . . [and whether] any changes should be considered." *Assessment of the Plan to Implement a Tick Size Pilot Program: Originally Submitted to the NMS Plan Participants* at 4 (July 3, 2018) (rev. Aug. 2, 2018).

[16] Proposal at 80280.

quoting tick increment that applies only to tick-constrained stocks, but strongly oppose applying the other proposed sub-penny tick increments absent further supporting data and additional analysis. In determining which stocks qualify as "tick-constrained," we recommend that the Commission adopt a more precise definition via additional qualifying metrics and exclude any stocks that do not meet that definition. Further, as part of any ongoing analysis of the tick size regime, we recommend that the Commission examine potential widening of the current $0.01 quoting tick increment for certain stocks where appropriate.

a. ICI Supports Adopting Enhancements to Round Lot Sizes and Odd-Lot Information Prior to Other Reforms

We strongly support the Commission's proposed enhancements to NMS core data, which include: (i) accelerated implementation by the securities information processors (SIPs) of the new round lot sizes and odd lot quote information that the Commission previously adopted as part of its broader MDI final rule in December 2020;[17] and (ii) calculation and dissemination by the SIPs of a specified best odd-lot order to buy, and a best odd-lot order to sell, for each NMS stock that is superior to the NBBO (BOLO). With respect to the BOLO, the Commission states that this additional odd-lot information, which was not a part of the MDI final rule, would further enhance the ability to trade and route orders effectively, as well as facilitate best execution. We agree with the Commission that BOLO data would be useful to many investors, given that smaller-sized orders often are quoted at better prices than the NBBO and represent price improvement.

We previously expressed support for introducing additional smaller round lot sizes to enhance the usefulness of the consolidated public data feed. Based on the growing prevalence of odd-lot orders smaller than 100 shares that are not currently included in core data, adding new round lot sizes of 40 shares, 10 shares, and 1 share for orders above $250 will improve the robustness of the consolidated feed and provide access to more meaningful information for a greater number of market participants. When implemented, greater access to this data will promote fair competition and enhance both price transparency and price discovery. Given the uncertainty of when the SIP operating committees intend to submit and obtain Commission approval for a revised NMS equity data plan—two years after which the new round lot sizes would likely be introduced based on the MDI final rule's implementation schedule,[18] we agree with eliminating this uncertainty and avoiding any further needless delay.

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[17] *Market Data Infrastructure*, Exchange Act Release No. 34-90610 (Dec. 9, 2020), 86 Fed. Reg. 18596 (Apr. 9, 2021) ("MDI Final Rule").

[18] The MDI final rule effectively sets the submission and approval of a new NMS equity data plan—along with the registration and operation of competing consolidators—as a prerequisite for implementing with the other adopted reforms, including the new round lot and odd lot data reforms. The Commission, however, disapproved the first plan that had been submitted by the SIP operating committees. *See Consolidated Tape Association; Order Disapproving the Twenty-Fifth Charges Amendment to the Second Restatement of the CTA Plan and Sixteenth Charges*

As part of a sequential approach to the Proposal's equity market structure changes, we recommend that the Commission implement these additions to NMS core data first, which would yield actual data on how the new round lot sizes and odd lot information affect trading. Among other anticipated effects, the Commission expects that smaller round lot sizes will lead to tightened quoted spreads and a tightened NBBO for certain stocks;[19] adding the additional information on the BOLO could have a similar effect. Given that the proposed quoting tick increment reductions—and the factors for determining whether a stock can be quoted in sub-penny increments—are determined by the stock's TWAQS, implementing the new round lot sizes and odd lot information first would be the logical first step. The Commission indirectly acknowledges this by saying that an expected tighter NBBO could increase the number of NMS stocks that are considered tick-constrained or near-tick-constrained.[20]

b. The Commission Should Adopt a Measured and Targeted Approach to Adopting Sub-Penny Quoting Tick Increments

We recommend that the Commission consider sub-penny quoting tick increments based on an analysis of the effects of the new round lot sizes and odd lot information enhancements to NMS core data, in particular the effects on quoted spreads.[21] Any initial application of a sub-penny quoting tick increment should be narrowly tailored and modest in scope, with any further increments supported by robust data analysis showing that they are necessary and appropriate.

Amendment to the Restated CQ Plan, Exchange Act Release No. 34-95851 (Sept. 22, 2022), 87 Fed. Reg. 58613 (Sept. 27, 2022). To our knowledge, the SIP operating committees have not submitted a revised plan for approval.

[19] Proposal at 80307 n.471, 80330 (noting that the NBBO will likely tighten in stocks priced greater than $250 when calculated based on a smaller round lot size, which could affect the number of NMS stocks considered tick-constrained). We separately note the Commission's view in the final MDI rule that new round lot sizes may have affect the internalization of retail order flow, which the Commission seeks to address in part via the Proposal. MDI Final Rule at 18747. This further supports our recommendation that the Commission start with implementing these NMS core data reforms first and observe their effects, before moving forward with other reforms.

[20] Proposal at 80330. The Commission notes that only stocks that are priced at more than $250 per share will get a round lot reduction, which it anticipates will ultimately subject them to tighter spreads. It further points out that those stocks currently make up less than 3 percent of overall share volume and are unlikely to have spreads of less than $0.04, which would subject them to a sub-penny quoting tick increment. Therefore, the Commission suggests that the introduction of new, smaller round lot sizes will have a minimal impact on the number of stocks that can be quoted in sub-penny increments. The Commission, however, does not offer additional data in support of this conclusion—such as, for example, whether the impact can also be considered minimal based on dollar volume or number of stocks. Further, the Commission does not account for the possible effects of new odd-lot information on tightening spreads and the likely level of impact it may have on the number of stocks that would become subject to quoting in sub-penny tick increments.

[21] We believe that our recommended sequential approach would be feasible under the Proposal's implementation schedules. The Commission has specified that accelerated inclusion of new round lot data and odd lot information would need to occur 90 days from Federal Register publication of any Commission adoption of a final rule. Proposal at 80298. Implementation of the new tick sizes, however, would be less certain, as the Proposal specifies staggered implementation periods that commence upon the effective date of any amendments to Rule 612, which the Commission has not yet set.

The Proposal, in contrast, sets forth a more expansive approach without full supporting data in important respects. For NMS stocks priced at or above $1.00 a share, the Commission would amend the current $0.01 tick size to establish a variable "bucketing" approach that assigns various quoting tick increments to NMS stocks based on a stock's TWAQS, which would be determined by the stock's primary listing exchange on a quarterly basis over a month-long evaluation period, as follows:[22]

- If a stock's TWAQS is equal to or less than $0.008, then the minimum tick size increment would be $0.001;
- If a stock's TWAQS is greater than $0.008 but equal to or less than $0.016, then the minimum tick size would be $0.002;
- If a stock's TWAQS is greater than $0.016 but equal to or less than $0.04, then the minimum tick size would be $0.005; and
- If TWAQS was greater than $0.04, then the minimum tick size would remain $0.01.

The proposed sub-penny quoting tick increments—$0.001, $0.002, and $0.005—would apply to stocks that the Commission considers to be "tick-constrained" or "near-tick-constrained," as well as stocks that do not fit either designation.

The Commission offers several reasons for its proposed tick increment regime. With respect to quoting increments, the Commission explains that the proposed sub-penny increments are necessary to: (i) address the fact that the current $0.01 increment has not kept pace with developments in the equity markets and has contributed to the existence of "tick-constrained" stocks; and (ii) help prevent other stocks that "trade with relatively small spreads" from becoming tick-constrained in the future.[23] The Commission's other primary concern, however, is that Rule 612 currently applies only to quoting increments and not *trading* increments, which it believes has led to a disproportionate amount of order flow—primarily attributable to individual retail participants—being routed away from exchanges to wholesale liquidity providers, which have a competitive advantage of being able to provide price improvement in sub-penny increments in executing trades. The Commission observes that these price improvement increments are most commonly $0.001 and $0.002.[24]

We recommend, instead, that reductions to the current $0.01 quoting tick increment be limited in scope at the outset and narrowly applied only to stocks whose trading is *consistently* constrained

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[22] Our comments apply to NMS stocks that trade at $1.00 or above, given that the Commission does not propose to change the tick size for NMS stocks that trade at prices below $1.00 per share (currently a minimum tick size of $0.0001).

[23] Proposal at 80280.

[24] The Commission also notes that price improvement on exchanges and ATSs often occurs through midpoint executions in a $0.005 increment. Proposal at 80281.

by that increment. The Commission's proposed tick size regime, in contrast, is unnecessarily expansive and complex. While we have previously opposed quoting in sub-penny increments,[25] we acknowledge that tick constraints have become an ongoing market issue that could be addressed by amending Rule 612. Therefore, we support the Commission's effort to address this problem by introducing sub-penny increments through a careful and measured approach. We agree quoting tick increment reduction, where appropriate, could help to promote better price discovery and reduce implicit trading costs for investors.

We therefore support the initial adoption of a $0.005 sub-penny quoting increment that would be limited only to tick-constrained stocks, the recommended scope of which we discuss further below. However, as we also discuss further below, we strongly oppose the proposed $0.001 and $0.002 tick increments without first conducting further analysis, which represent a tenfold and fivefold decrease from the current $0.01 tick increment, respectively. Such increments are excessively granular, and the Commission does not provide adequate data or other justifications to support them. Importantly, as we discuss further below, these increments would create risks of significant market harm, increased operational complexity, and unintended consequences to funds and other institutional investors.

Importantly, we emphasize that any such sub-penny quoting tick increment would apply to *all* market participants transacting across all trading venues, which includes funds and other institutional investors. Therefore, such quoting increments should not be primarily informed by the specific increments that certain order flow types, *i.e.*, individual retail investor orders, typically receive as price improvement on executed trades from off-exchange liquidity providers. The fact that the Commission's data shows that a significant percentage of trade executions in today's equity markets occur in sub-penny increments[26] does not have bearing on our concerns about the potential effect of excessively granular sub-penny *quoting* tick increments on institutional investors, as we discuss further below.

i. The Commission Should Not Adopt a $0.001 or $0.002 Tick Increment Without Further Analysis and Support

While we support a half-penny reduction in the quoting increment for tick-constrained stocks, we strongly oppose implementing the additional $0.001 and $0.002 increments—the latter of which

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[25] Letter from Karrie McMillian, General Counsel, ICI, to Elizabeth M. Murphy, Secretary, SEC, on *Concept Release on Equity Market Structure* at 21 (Apr. 21, 2010) (stating that "[w]hile [ICI] strongly supported the move to decimalization and the trading of securities in minimum increments of one penny, [it has] strongly opposed the entry of orders and the quoting of securities in sub[-]pennies."); Letter from Ari Burstein, Associate Counsel, ICI to Jonathan G. Katz, Secretary, SEC, on *Regulation NMS* at 19 (June 30, 2004). *See also* Letter from Craig S. Tyle, General Counsel, ICI, to Jonathan G. Katz, Secretary, SEC, on *Request for Comment on the Effects of Decimal Trading in Subpennies* at 1 (Nov. 20, 2001).

[26] Proposal at 80306.

the Commission seeks to apply to tick-constrained stocks—at this time.[27] We disagree with the Commission that applying these granular increments would lead to fair and orderly markets and economically efficient executions for affected stocks, and believe that the proposed approach would harm, rather than promote, price discovery and price competition.

At the outset, we note that the Commission does not offer a sufficient explanation for core aspects of the proposed tick size regime, including $0.001 and $0.002 as quoting increments. The Commission has neither provided adequate data nor other sufficient justification that supports a five-fold or ten-fold reduction at this time. Relatedly, it is also unclear how the Commission devised the specific TWAQS ranges and assigned them to the specific tick increments, which includes a determination that tick-constrained stocks and some "near-tick-constrained" stocks should receive a $0.002 quoting increment.[28] Further, even though no stocks currently have a TWAQS of $0.008 or less, the Commission nevertheless determined to propose a $0.001 quoting increment.[29] While the Commission states that investors are familiar with $0.001, $0.002, and $0.005 as *trading* increments, it does not clearly explain why these increments would also be suitable as *quoting* increments.

First, funds have had longstanding concerns—which the Commission is well aware of—about the consequences of quoting in sub-penny increments.[30] Of greatest concern is that overly granular increments would enable "pennying," in which a market participant can gain execution priority over another participant by outbidding by an economically insignificant amount—in this case, by as little as $0.001 or $0.002 for the same security. This practice would have several negative consequences, such as making it more difficult for funds to execute large orders[31] and subjecting them to execution delays, resulting in price slippage that translates to additional costs for fund investors.[32] This would further disincentivize displaying of limit orders in large size on

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[27] We note that, based on the proposed TWAQS levels, no stocks would currently be subject to a $0.001 tick increment.

[28] The Commission explains that the particular pricing increments were designed to correlate to the TWAQS to limit the number of potential price points within the spread, which should mitigate the loss of liquidity that can occur when the minimum tick increment is reduced and the number of pricing increments increases, thereby preserving meaningful price improvement for the majority of stocks that would trade at minimum pricing increments that are a half penny or less. Proposal at 80281. However, this does not directly explain how the Commission arrived at the proposed TWAQS ranges.

[29] Proposal at 80280 n.211.

[30] *See supra* note 25; *see also Regulation NMS*, Exchange Act Release No. 34-51808 (June 5, 2005) 70 Fed. Reg. 37496, 37551 ("Regulation NMS Final Rule").

[31] For example, quote flickering may increase, which may make it more difficult to determine the best available executable prices for share quantities larger than a round lot. *See infra* note 37.

[32] The Commission acknowledges this concern in the Proposal, stating that too-small tick sizes could reduce the importance of trading speed. Proposal at 80306 (stating that it may "inefficiently award speed").

exchange, and further incentivize participants to trade via off-exchange, non-displayed trading venues.[33] This, in turn, would contribute to even greater market fragmentation and increased dispersion of market liquidity across different market centers.

Second, we are concerned that excessively granular sub-penny increments could negatively affect quoted market depth,[34] which is critical for funds and advisers seeking to execute large orders. The Commission states that the proposed TWAQS categories and corresponding tick size increments are intentionally designed to provide at least three to four—and potentially up to eight—different price points inside the quoted spread.[35] Further, the Commission acknowledges that enabling multiple price levels based on \$0.001 and \$0.002 increments is intended in part to allow wholesale liquidity providers to continue to provide price improvement over the best displayed quotes.[36] However, funds may find it more challenging to transact in large size if liquidity spreads too thinly across too many price points, which would reduce available liquidity at the top of the book, *i.e.*, the NBBO. Such challenges may ultimately have the opposite of the Commission's intended effects of promoting price discovery and price competition, and instead disincentivize the posting of liquidity at the NBBO on-exchange, while also increasing trading on off-exchange venues.

While market participants, including ICI members, have voiced these concerns about sub-penny increments since Rule 612 was adopted in 2005, the Commission should not assume that innovations in equity market trading since that time have simply dispelled them.[37] The speed in which quoting and trading occurs in the equity markets has increased exponentially; funds and their advisers, along with institutional brokers, regularly invest significant resources and efforts into adapting to evolving market environments as necessary to pursue their investment objectives and strategies. Nevertheless, certain types of market participants, such as high-frequency traders, utilize extreme low-latency systems and ultrafast communication protocols that confer

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[33] The Commission acknowledges that a smaller tick can lead to pennying, which reduces the economic gains to posting liquidity, leading to a lower incentive to post liquidity. We agree with the SEC's assessment that "minimum pricing increments that are too small can also add to complexity in trading and increase the risk of stepping ahead." Proposal at 80280. The SEC's own economic analysis suggests that there would be a higher cancel-to-trade ratio with a smaller tick size, which is consistent with pennying and increased complexity in stocks with wider spreads. Proposal at 80321.

[34] *See, e.g.*, Gabriele La Spada, J. Doyne Farmer and Fabrizio Lillo, *Tick Size and Price Diffusion*, in ECONOPHYSICS OF ORDER-DRIVEN MARKETS at 2 (F. Abergel, Bikas K. Chakrabarti, Anirban Chakraborti, and Manipushpak, eds.) Mitra, eds., 2011) at 2 (summarizing numerous past tick size studies that show that a tick size reduction, among other effects, decreases quoted depth and overall depth in a limit order book).

[35] Proposal at 80281.

[36] Proposal at 80303.

[37] The Commission believes that the issue of "flickering quotes" is "largely no longer relevant today" because of the availability of low latency systems and ultrafast communication protocols that enable market participants to quote and trade in a matter of microseconds. Proposal at 80279 n.195.

significant speed advantages over others when accessing and reacting to changing quotes and permit them to execute trades in microseconds. Therefore, market practices such as pennying and flickering quotes continue to be valid concerns that the Commission cannot easily dismiss.

Third, we are also concerned that overly granular quoting increments, which result in a greater number of price points, would significantly and needlessly increase operational complexity for market participants. Funds and their brokers would have to adjust their trading workflows, technological systems, and trade booking and accounting systems to account for multiple different tick increments, more than one of which could change across more than one level in a given quarter. Making the necessary changes would require significant financial and operational resources. Importantly, exchanges will be required to calculate large amounts of trade data on an ongoing basis to determine whether a stock has become subject to a lower tick increment, which significantly increases the risks of technological failures that would disrupt market functioning. Additionally, funds and other market participants would encounter an exponential increase in the number of trade messages due to additional price points created by new tick size increments. This would result in greater operational and technological burdens and ultimately lead to greater market latency, which could further benefit sophisticated high-frequency traders at the expense of funds and their advisers.

Further, we disagree with the Commission's view that reducing the current $0.01 quoting increment to the proposed sub-penny increments would produce similar effects as did reducing the $0.05 quoting increment back to $0.01 at the conclusion of the Tick Size Pilot Program. During the pilot, the Commission observed that some of the stocks that were part of the pilot became tick-constrained when subjected to the widened increment,[38] and reducing the increment back to $0.01 ultimately yielded narrower spreads, lower transaction costs, and an "improved trading environment."[39] The Commission believes that similarly reducing the $0.01 tick to sub-penny increments for tick-constrained and near-tick-constrained stocks would yield similar desirable benefits.[40] We believe that this analogy is misplaced, as there are important distinctions between these scenarios—most importantly, the pilot applied to a subset of small cap stocks that were selected for inclusion in the pilot based on specific criteria that did not include whether or not the stock was tick-constrained.[41] As expected, eliminating the artificially *wider* tick

[38] The Commission refers to this group as a "first bin" of stocks with average quoted spreads of $0.00 to $0.06, some of which were considered to be tick-constrained by the $0.05 increment. Proposal at 80320.

[39] Proposal at 80322.

[40] Proposal at 80322.

[41] The securities included in the pilot qualified based on following criteria calculated over a specified measurement period: market capitalization of $3 billion or less; closing price of at least $2; closing price not less than $1.50 on every trading day; consolidated average daily volume during the measurement period of 1 million shares or less; and volume-weighted average price of at least $2. *Joint Industry Plans; Order Approving the National Market System Plan to Implement a Tick Size Pilot Program by BATS Exchange, Inc., BATS Y-Exchange, Inc., Chicago Stock*

increment that led to tick constraint problems simply allowed these stocks to revert to their natural liquidity profiles.[42] Given the consequences described above, we believe that applying a significantly *narrower* $0.002, $0.001, or even $0.005 increment for the first time to different stocks among different TWAQS ranges could instead degrade the current trading environment and increase transaction costs.

Therefore, instead of implementing a complex regime consisting of multiple sub-penny quoting increments all at once, we recommend that the Commission start by establishing a single half-penny increment that applies only to "tick-constrained" stocks, as defined further below. This would be a more measured and targeted approach that would avoid drastic reductions from the existing penny tick increment and result in less operational complexity and fewer concerns about pennying, as well as the further loss of displayed liquidity and market depth. If applied to a narrower group of stocks, we believe that this approach would yield sufficient meaningful data to observe whether a modest reduction is adequate to address the problem of tick constraints and determine whether additional reductions—including more granular sub-penny increments such as $0.0020—are appropriate and necessary in the future.[43] Further, we would support determining a stock's quoting increment on a quarterly basis as currently proposed, which would balance the benefits of having appropriately-sized quoting increments against the need to avoid operational complexity, *i.e*., excessive changes in the increment over a short period of time.[44]

ii. The Commission Should Adopt a More Precise Definition of "Tick-Constrained"

We strongly recommend that the $0.005 quoting tick increment be applied only to stocks that are truly "tick-constrained." As proposed, the Commission specifies that "tick-constrained" stocks are those that currently trade at a $0.011 spread or less, *i.e.*, near a penny tick. In addition, the Commission describes other qualitative characteristics of these stocks, noting that they

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Exchange, Inc., EDGA Exchange, Inc., EDGX Exchange, Inc., Financial Industry Regulatory Authority, Inc., NASDAQ OMX BX, Inc., NASDAQ OMX PHLX LLC, The Nasdaq Stock Market LLC, New York Stock Exchange LLC, NYSE MKT LLC, and NYSE Arca, Inc., as Modified by the Commission, For a Two-Year Period, Exchange Act Release No. 34-74892 (May 6, 2015), 80 Fed. Reg. 27513 (May 3, 2015).

[42] The Commission acknowledges that these stocks likely returned to their "natural[]" state of trading. *See* Proposal at 80320 (noting that "liquidity naturally spread out" once the constraining $0.05 tick increment was removed).

[43] Proposal at 80343. The Commission declined this approach in the Proposal based on its belief that a single sub-penny increment would not address near-tick-constrained stocks. As we explain, however, we believe starting with a single half-penny increment applied to tick-constrained stocks is the most appropriate approach and is supported by the documented market issues that exist. *See infra.*

[44] We recognize that, as proposed, the primary listing exchanges would be responsible for determining a stock's TWAQS, and thus its quoting tick increment, on a quarterly basis, as well as disseminating that information to market participants. To the extent that the listing exchanges believe that such level of frequency would create excessive operational complexity, we recommend that the Commission consult with the exchanges and account for those concerns.

"generally have lower prices and consistent liquidity at the top of the book for both bids and offers."[45] The Commission concludes that these stocks could be priced more aggressively within this spread if tick sizes were smaller but that they cannot do so because of Rule 612's limitation.[46]

We generally agree with the Commission's approach as to what constitutes a tick-constrained stock but recommend a more precise definition that includes other quantifiable thresholds in addition to TWAQS. Absent additional qualifying criteria, we are concerned that applying sub-penny tick increments to stocks that may naturally trade at a penny spread would have adverse market consequences, as discussed above.[47] To avoid this outcome, the Commission should adopt a multi-factor determination that includes, in addition to a TWAQS of $0.011 or less, large quoted displayed size and a relatively high level of liquidity, such as a measure based on average daily traded volume.[48] Applying these additional factors to determine whether a stock is tick-constrained would lessen concerns about an overbroad tick size reduction, as well as mitigate the chance that even a less granular sub-penny quoting increment such as $0.005 could lead to an adverse market outcome.[49] We encourage the Commission to conduct further data analysis to determine the appropriate thresholds for the additional factors, taking care to avoid setting levels that are too high, which would unduly limit the number of stocks deemed to be tick constrained.

iii. The Commission Should Not Apply Sub-Penny Quoting Tick Increments to Stocks that are Not Tick-Constrained

Consistent with our recommendation that a half-penny quoting increment apply only to "tick-constrained" stocks, the Commission should not apply this increment (or any other sub-penny increment) to stocks that do not qualify as "tick-constrained." The Commission proposes to apply sub-penny increments to two categories of stocks that are not tick-constrained: stocks that

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[45] Proposal at 80278. We note that the Commission applies this observation to all stocks that would be subject to one of the proposed sub-penny increments, which would include "near-tick-constrained" stocks and stocks that are neither tick-constrained nor near-tick-constrained. We also note that these observations are consistent with the Commission's longstanding view that stocks that trade with a penny spread and feature "tremendous [available] liquidity on both sides of the market" may warrant an exemption from the $0.01 tick increment. Regulation NMS Final Rule at 37554.

[46] Proposal at 80268.

[47] We disagree with the Commission that a majority of NMS trading volume is tick-constrained, including its determination that there are 1,337 NMS stocks that would be considered tick-constrained under the metric of TWAQS alone. Proposal at 80274.

[48] We note that the appropriate metrics underlying these criteria may differ somewhat for ETFs compared to single stocks based on how ETFs trade.

[49] According to the Commission, its own empirical analysis is inconclusive as to whether the 22% of stocks that would receive a half-penny tick reduction—the level that we recommend above—would yield "better market quality outcomes" than the status quo. Proposal at 80320 Table 9.

it characterizes as "near-tick-constrained" and stocks that are not even near-tick-constrained.[50] The Commission defines "near-tick-constrained" stocks as those that trade at "relatively smaller" spreads,[51] *i.e.*, greater than $0.011 but less than $0.02,[52] that *could become* (*i.e.*, have a "reasonable probability") of becoming tick-constrained in the future" or where the tick is a "substantial portion" of the quoted spread.[53] The Commission also characterizes near-tick-constrained stocks as being "sometimes" tick-constrained (*i.e.*, at a penny tick) and at other times not tick-constrained (*i.e.*, one tick wider).[54] In contrast to the 1,337 tick-constrained stocks that would become subject to a $0.002 increment,[55] the Proposal would apply the $0.002 and $0.005 increments to 3,018 stocks that are not tick-constrained.[56] Based on the number of stocks, the potential impact of the Proposal on non-tick-constrained stocks would be magnitudes larger.

We strongly recommend that the Commission not broaden the application of sub-penny quoting increments to non-tick constrained stocks—importantly, the Commission has failed to demonstrate a market failure or harm that would support doing so.[57] We do not view the potential for a stock to become tick-constrained in the future—a highly uncertain outcome—as a market problem that the Commission needs to address now, particularly when its proposed approach for doing so could have a considerable negative impact on funds and their investors. Further, the Commission is both unclear and imprecise when explaining what makes a stock "near-tick-constrained." Outside of a specified quoted spread range, what constitutes a "reasonable probability" of becoming tick-constrained? What does it mean precisely for a stock

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[50] Given that the Commission defines near-tick-constrained stocks as those with a TWAQS between $0.011 and $0.02, stocks that have a TWAQS between $0.02 and $0.04 are neither tick-constrained nor near-tick-constrained but would be subject to a $0.005 quoting increment.

[51] Proposal at 80282.

[52] Proposal at 80308 Table 4.

[53] Proposal at 80304.

[54] Proposal at 80305 n.458.

[55] Proposal at 80274.

[56] According to the Commission's own analysis, 1,707 stocks would be subject to a $0.0020 tick increment. Of those stocks, 370 are not tick-constrained (1,707 – 1,337 stocks identified by the Commission as tick-constrained). Further, the Commission identified 2,648 stocks with an average quoted spread between $0.016 and $0.04—not tick-constrained—to which a $0.005 tick increment would apply. Proposal at 80316, Table 8.

[57] *See New York Stock Exchange LLC et al. v. SEC*, 2020 U.S. App. LEXIS 18860 at 4 (June 16, 2020), in which the US Court of Appeals for the DC Circuit struck down the Commission's Transaction Fee Pilot Program because it was not adopted to address some "problem worthy of regulation," *e.g.*, conflicts of interest caused by maker-taker rebates.

to “sometimes” be tick-constrained?[58] This lack of clarity makes it impossible to evaluate the Commission’s claim that the current $0.01 tick increment poses a market problem for near-tick-constrained stocks and increases transaction costs for investors.[59] Further, the Commission offers little explanation as to why stocks that are not even “near-tick-constrained,” *i.e.*, with a TWAQS between $0.02 and $0.04, warrant any tick reduction at all, given that one of the Commission’s stated primary concerns underlying the Proposal is tick constraints.

iv. The Commission Should Also Examine Potential Widening of Quoting Tick Increments for Some Stocks

Although the Proposal focuses primarily on tick size reduction, we would also support the Commission further considering the merits of widening quoting tick increments for certain stocks. We note that the Commission’s observations from the Tick Size Pilot Program that increasing the tick size for stocks with much wider spreads “appeared to provide a superior trading environment” at least merit additional analysis.[60] Many stock prices have increased significantly in recent years and currently trade with significantly wide spreads that are multiples of a penny tick, such that a penny no longer represents meaningful price improvement and allows for stepping ahead of posted orders by an economically insignificant amount. As discussed above with respect to sub-penny quoting increments, increased frequency of stepping ahead ultimately disincentivizes displayed liquidity and price discovery. Thus, wider tick sizes for higher-priced stocks would increase the costs of stepping ahead, which could incentivize market participants to post more displayed limit orders, thereby promoting more liquidity and price transparency. Wider tick increments could also provide several other benefits, including greater top of book liquidity and aggregation of market depth around fewer price points, which would be beneficial to funds and their advisers.

III. ICI Supports Corresponding Changes to the Access Fee Cap

We support a concurrent reduction in the $0.0030 access fee cap under Rule 610 to correspond to our recommended half-penny quoting tick increment for tick-constrained stocks. We agree with the Commission that a reduction is necessary to avoid allowing the access fee to become an outsized proportion of overall execution costs. We also note, however, that ICI members possess a range of views as to important aspects of amending the access fee cap, including the appropriate amount of the reduction as well as the scope of stocks to which any reduction should apply, *i.e.*, only stocks subject to a sub-penny quoting tick increments or all stocks generally.

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[58] We also point out that the Commission provides no clear explanation or justification as to which “near-tick-constrained” stocks get a $0.002 quoting tick increment (quoted spread between $0.011 and $0.016) versus those that would get a $0.005 quoting tick increment (quoted spread between $0.016 and $0.02).

[59] Proposal at 80304.

[60] Proposal at 80322. *See also* Yashar H. Barardehi, Peter Dixon, Qiyu Liu, and Ariel Lohr, *Tick Sizes and Market Quality: Revisiting the Tick Size Pilot* (working paper) at 3 (Nov. 28, 2022).

Therefore, at this time, we are not providing a specific recommendation with respect to these aspects.

However, we encourage the SEC to continue to examine the predominant "maker-taker" fee model that has emerged under the current access fee cap under Rule 610(c). As we previously noted in our support of the Commission's proposed Transaction Fee Pilot Program, transaction fees and rebates available under this model have wide-ranging effects on the equity markets, including possibly affecting the way brokers handle customer orders, as well as market transparency and complexity.[61] Therefore, we would welcome further Commission analysis regarding the extent of these effects and whether further reductions to the access fee cap would help to address them.[62]

To increase market transparency and mitigate market complexity, we also support the proposed prohibition on exchanges from imposing fees or providing rebates (or other forms of remuneration) for the execution of an order unless the fee or rebate can be determined at the time of execution. We have observed that exchanges' transaction fees and rebates contribute to market complexity and limit market transparency because the prices displayed by exchanges generally do not include fee or rebate information, and therefore, do not fully reflect net trade prices.[63] Further, such fees and rebates may inform the way that routing brokers handle institutional investors' orders.[64] Therefore, ensuring that these fees and rebates are known at the time of execution would promote more transparency for the benefit of funds and their advisers, as this could provide more insight into order handling decisions and the execution quality that funds are ultimately receiving.

IV. ICI Supports Exceptions to the Proposed Minimum Trading Increments

We support the Commission's proposed exceptions from its minimum trading increments, which mirror the proposed quoting tick increments. These exceptions would apply to: (i) midpoint trades, *i.e.*, orders that execute at (but are not explicitly priced at) the midpoint of the NBBO or the midpoint of the protected best bid and offer (PBBO); and (ii) benchmark trades, *i.e.*, orders that execute at a price not based on the quoted price at the time of execution and for which material terms were not reasonably determinable at the time the commitment to execute the order

[61] Letter from Susan M. Olson, General Counsel, ICI to Brent J. Fields, Secretary, SEC on *Transaction Fee Pilot for NMS Stocks* at 2 (May 23, 2018) ("ICI Transaction Fee Pilot Program Letter").

[62] The Commission states in the Proposal that lowering the cap would lower transaction costs and promote market efficiency by lowering access fees and rebates, which would reduce, but not eliminate, any distortionary effects of exchange rebates on order routing and likely improve market efficiency. While we have expressed similar concerns about these possible effects, our support for reducing the cap in this instance is not primarily driven by those concerns.

[63] *See* ICI Transaction Fee Pilot Program Letter; Letter from Ari Burstein, Associate General Counsel, ICI to Brent J. Fields, Secretary, SEC on *SEC Equity Market Structure Advisory Committee* (May 11, 2015).

[64] *Id.*

was made, including volume-weighted average price (VWAP) and time-weighted average price (TWAP) trades. We agree with the Commission that midpoint and benchmark trades, which funds and their advisers typically rely upon for handling orders and implementing trading strategies to reduce market impact,[65] warrant greater flexibility in the increments in which they trade.

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We hope that this information and these recommendations are helpful to the Commission as it considers how to move forward with the Proposal. If you have any questions, please contact Sarah Bessin at sarah.bessin@ici.org or Nhan Nguyen at nhan.nguyen@ici.org.

Regards,

/s/ Sarah A. Bessin

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The Honorable Caroline A. Crenshaw
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The Honorable Jaime Lizárraga

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Securities and Exchange Commission

[65] Proposal at 80284.