Cboe

February 28, 2023

Ms. Vanessa A. Countryman, Secretary
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549-1090

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

Dear Ms. Countryman,

Cboe Global Markets, Inc. ("Cboe") is providing this submission for the Securities and Exchange Commission's ("SEC" or "Commission") comment file regarding the Proposal on Regulation NMS: Minimum Pricing Increment, Access Fees, and Transparency of Better Priced Orders (the "Proposal").[1] While Cboe intends to comment more expansively on the Proposal, this submission re-introduces Cboe's recommendation from last year for a tick size framework - but with refreshed data from the fourth quarter of 2022. We have heard from participants that limiting tick reform to a more targeted subset of symbols that are discernably tick-constrained is appropriate and as a result, we submit the attached updated framework to help inform discussion on this important topic.

Last fall, Cboe published a tick reduction framework that objectively identified tick-constrained securities. Applying a ½ cent tick to those securities would allow the marketplace to more safely understand and process the implications of tick reform without immediately embarking on sweeping changes that could introduce operational complexity and risk.

Cboe's refreshed framework outlined in the attachment is meant to be flexible with parameters that can be adjusted or even removed[2] to increase the number of identified symbols. We believe the most pragmatic approach is to start with a universe of securities that are truly tick-constrained and then evaluate the results using empirical data before making the tick size reform more expansive. This will better insulate investors and issuers from any negative unintended consequences.

Cboe appreciates the opportunity to contribute to this important discussion. We look forward to submitting more comprehensive comments in the near future.

Sincerely,

Angelo Evangelou

[1] Securities and Exchange Commission, Release No. 34–96494 (December 24, 2022), 87 FR 80266 (December 29, 2022).
[2] For example, eliminating the proposed high notional turnover constraint would produce a larger subset of qualifying symbols.

Tick Constrained Update

Last fall, Cboe published a tick reduction framework designed to identify securities that were tick-constrained to facilitate implementation of a targeted tick reform model that minimized operational complexity and unintended consequences associated with a large-scale sweeping increment change. In light of the Commission's December 2022 Proposal on Regulation NMS: Minimum Pricing Increment, Access Fees, and Transparency of Better Priced Orders, we are reintroducing our framework with refreshed data from the fourth quarter of 2022.

Our proposed framework is flexible. Below we provide multiple thresholds that can be utilized to support identification of a suitable subset of tick-constrained stocks. Cboe believes the most important consideration is to use an objective methodology to apply any reduced tick size regime to a smaller pilot universe of symbols before making it more expansive to avoid any negative unintended consequences for equity market structure and investors. Our updated framework is outlined in detail, below.

Designing Objective Criteria

The first principle of the proposed framework selects candidates based on an objective set of criteria. We propose that a security is a candidate for the tick-size-reduction regime if it satisfies the following top-down framework:

1. Constraint: Tight average inside quoted spread

We believe these securities are being quoted at such tight spreads that there are possible benefits to be gained from exploring whether these securities should be quoted in finer increments.

2. Cost: High quote-size-to-trade-size ratio (Quote-Trade Ratio)

The Quote-Trade Ratio calculates the daily average of each security's inside quote-size-to-trade-size ratio. We consider this criterion an objective signal that shows even though there is an abundance of liquidity, the current $0.01 tick constraint disincentivizes investors to cross the spread due to high costs, resulting in a lack of trade executions.

3. Liquidity: High average daily notional turnover (Notional Turnover Ratio)

The Notional Turnover Ratio calculates the daily average of each security's notional value traded divided by its daily market capitalization. We believe this criterion is appropriate as an objective signal because it focuses the tick-reduction effort on high turnover securities that would benefit from the ability to be traded in finer increments. Conversely, we do not believe thinly traded securities in proportion to their market capitalization—which would have low notional turnover—should be the focus of a tick-reduction effort.

Refining Parameters

For the quoted spread factor, we believe it is most appropriate to set a parameter of 1.1 cents, selecting securities with an average daily quoted spread at or below 1.1 cents as candidates for a tick-reduction regime.

Next, we observed the distribution of these securities' quote-trade ratios. We focused on securities on those with high Quote-Trade Ratios. To highlight how our proposal can be flexible, we calculated the 75, 65, and 50th percentiles for the Quote-Trade Ratio parameter.

Consequently, for the Notional Turnover Ratio, we selected the top 75, 65, 50th percentiles as the objective threshold for consistency with the selection method for Quote-Trade Ratio.

Nimble Approach to Tick-Reduction

We propose that the selected parameters—such as spreads below 1.1 cent and top 75 to 50th percentiles of ratios—remain fluid. This means the values of the parameters should be periodically reviewed and calibrated on a quarterly or bi-annual basis to reflect changes in market conditions. We believe nimble policies ensure that potential market structure reforms keep pace with changing market conditions and in turn, facilitate continued fair, orderly and efficient markets for the benefit of all investors.

75th Percentile (Figure 1)

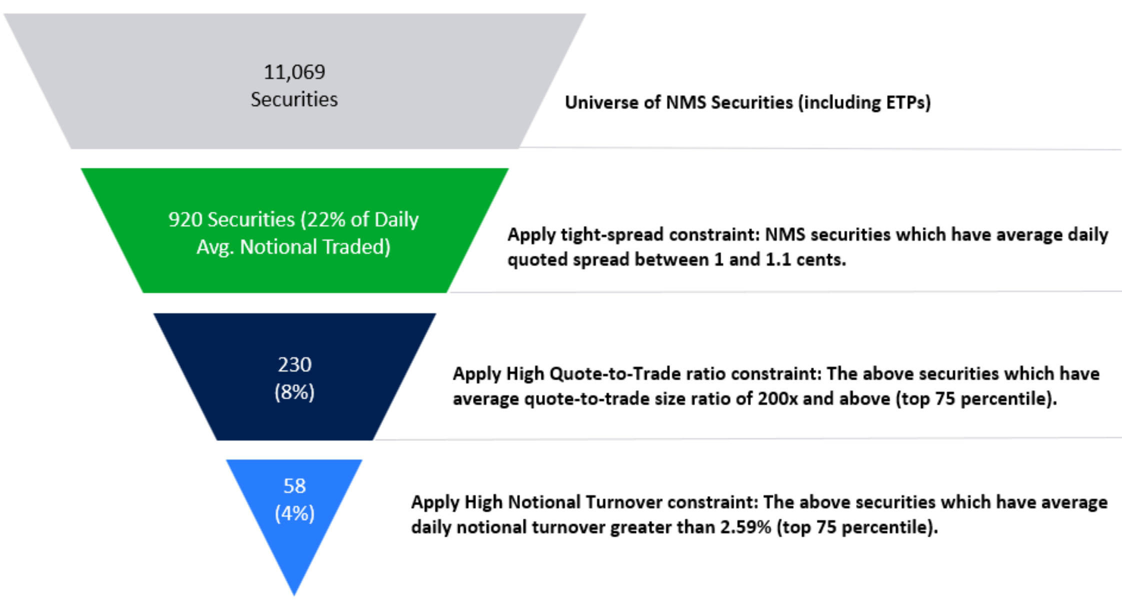

Figure 1 above, summarizes an objective universe selection framework of a tick-reduction regime using the 75th percentile for the Quote-Trade Ratio and Notional Turnover Ratio – identical to Cboe's published proposal. With an objective, selective and nimble framework, the potential universe of true tick-constrained securities is much smaller than previously believed. The objectiveness of this framework enables potential regulatory applications to be much more selective, and focused on actual market inefficiencies and needs, rather than a one-size-fits-all policy, which could potentially be harmful to market structure.

65th Percentile (Figure 2)

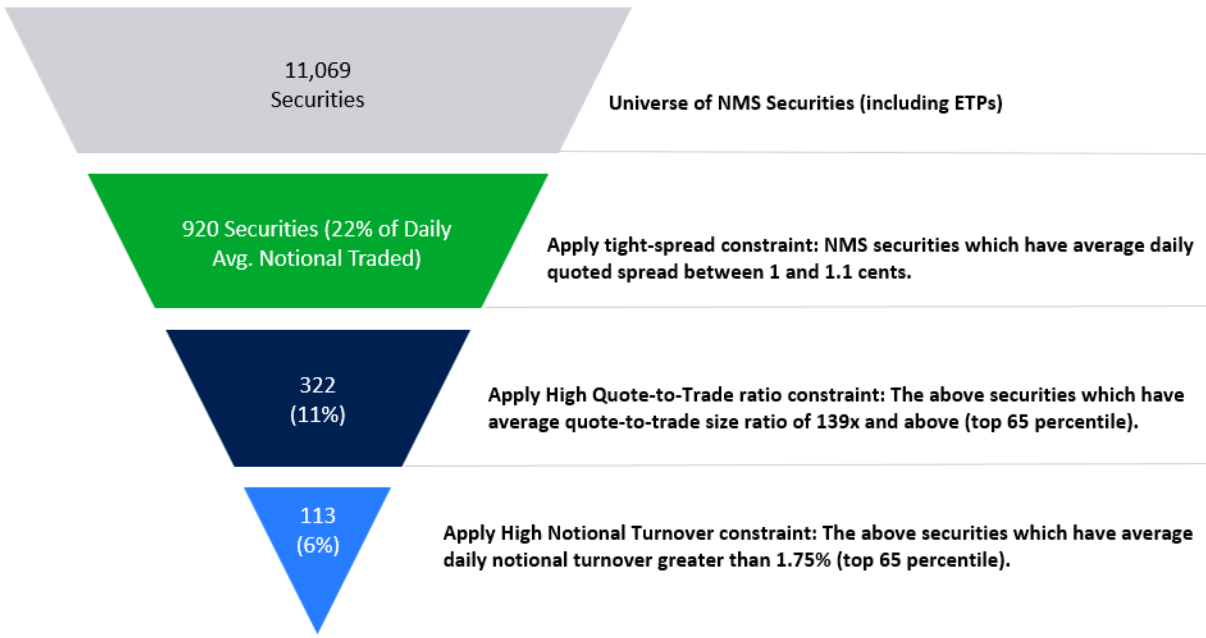

Figure 2 above applies the same framework as the original proposal, however calculates the Quote-Trade Ratio and Notional Turnover Ratio using the 65th percentiles instead of 75th. The purpose is to prove that our empirically driven framework is nimble and able to adjust based on market conditions. With the 65th percentile constraint, we see more securities would be considered tick constrained, although still a much smaller subset of securities than the Commission's proposal.

50th Percentile (Figure 3)

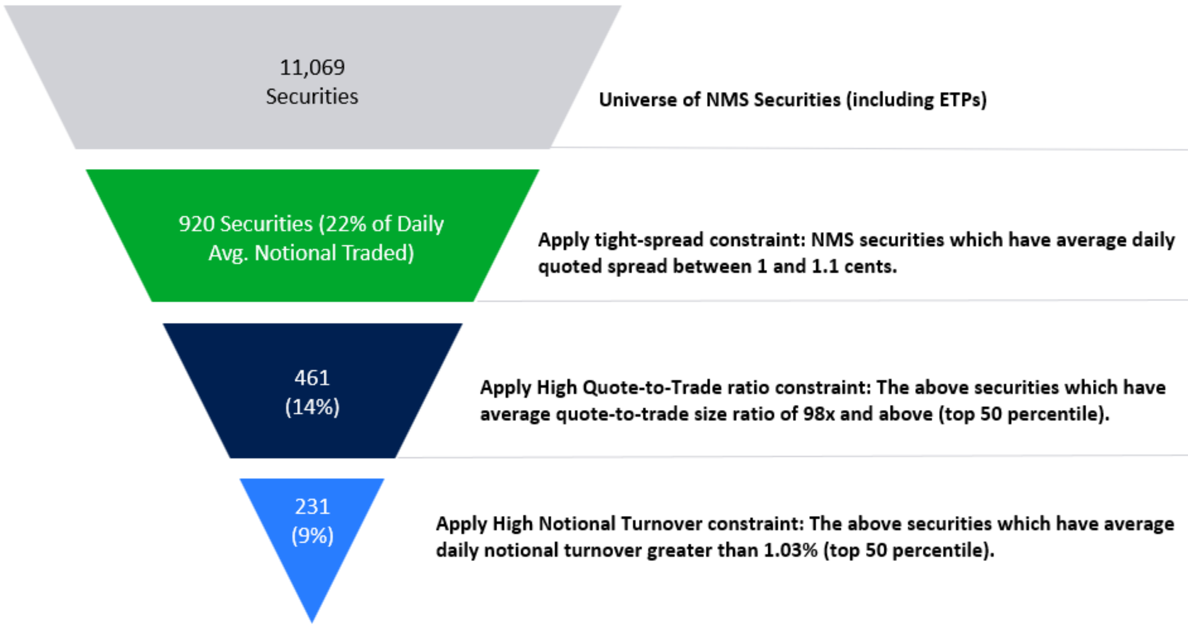

Figure 3 above shows the 50th percentile of the Quote-Trade Ratio and Notional Turnover Ratio calculations.

Conclusion

We recommend that potential regulatory amendments seeking to address market inefficiencies be empirically driven and narrowly tailored. Cboe prefers identifying symbols consistent with Figure 1 above coupled with a more conservative initial tick-reduction to 0.5 cents, but we are open to constructs set forth in Figures 2 and 3. The framework should be reevaluated quarterly or bi-annually for the parameters to remain nimble to changing market conditions.

Cboe believes empirically driven and targeted equity market structure reforms are important to maintain fair, competitive, robust and resilient markets that are inclusive of all investors. We are committed to working toward a solution in partnership with our regulators and industry peers and welcome discussion regarding this proposal.