March 31, 2023

VIA EMAIL

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

Re:

File No. S7-29-22; Release No. 34-96493; Disclosure of Order Execution Information
File No. S7-30-22; Release No. 34-96494; Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders
File No. S7-31-22; Release No. 34-96495; Order Competition Rule
File No. S7-32-22; Release No. 34-96496; Regulation Best Execution

Dear Ms. Countryman:

Thank you for the opportunity to provide comments on the Securities and Exchange Commission's ("SEC" or "Commission") aforementioned rule proposals (collectively, the "proposals") on equity market structure reform. UBS commends the SEC for its focus on ways to further improve the functioning of our securities markets. Although we have concerns with some of the specific proposals and the Commission's overall approach, we appreciate the SEC's good faith efforts to try to strengthen investor protection and promote market integrity.

UBS occupies a unique market position and holds an important perspective given our significant presence across different aspects of U.S. capital markets. Most significantly, we are a leading global wealth and asset manager. Additionally, we are a major participant in key parts of the U.S. equity market, including institutional equity trading, alternative trading (largest alternative trading system or "ATS" in the US), and retail market making. From this overall position, we view these proposals through the lens of their potential impact on our clients, in particular retail clients, who not only interact with the market as individual investors but also through pension funds, mutual funds, and other pooled investment vehicles.

UBS has long supported the Commission's efforts to increase transparency and competition in the U.S. securities markets. Market structure and technology have advanced significantly over time, providing tangible benefits to investors (particularly retail investors) through better and faster executions at lower costs. At the same time, our markets have proven to be highly resilient during times of extreme volatility and stress. So, while we think regulation needs to keep pace with the changes in markets, we also caution the SEC against undertaking new rules that could curtail market innovation or jeopardize the market's resiliency.

At the outset, UBS strongly agrees with the SEC on the need to improve and expand disclosures regarding execution quality. Chair Gensler captured the need for additional enhancements in this area when he stated "[c]urrent Rule 605 disclosures have not kept up with our markets and provide investors with an incomplete picture of execution quality."[1] Accordingly, we are broadly supportive of the SEC's proposed changes to execution quality disclosures under Rule 605. We believe the SEC should implement the proposed changes to Rule 605 and study the data generated by the updated framework before moving forward with other highly impactful market

[1] SEC, "SEC Proposes Amendments to Enhance Disclosure of Order Execution Information" (December 14, 2022), https://www.sec.gov/news/press-release/2022-223

structure changes. We believe that transformative changes to US equity market structure should be based on objective analyses that are informed by the best available data. With the benefit of a better baseline of data and a more well-informed understanding of how the market functions, the SEC would be in a stronger position to consider specific reforms and evaluate their impact on the functioning of the market and on the experience of investors.

While we think any further proposed changes to equity market structure should be based on a careful study and consideration of revised Rule 605 execution quality data, we also have carefully considered the SEC's remaining proposals. To ensure that our comments reflect our most considered view of these important proposals, we undertook a systematic effort to engage our most knowledgeable staff across multiple business activities and functions in a series of internal discussions during the comment period. Based upon our review and analysis, we have a variety of concerns about how these proposals would work and what would be their individual and collective impacts on market participants. We highlight below several overarching themes that run through our specific concerns, which are outlined in detail in the body of our letter.

First, it remains unclear what fundamental problem the SEC is trying to solve. The SEC is proposing a complete overhaul of a U.S. equity market that today is widely recognized as competitive, efficient, resilient and world-leading. In our experience, the current market structure provides retail clients with fast and highly certain executions, price improvement, and liquidity that is generally better than public markets. We appreciate that the Commission is issuing these proposals with the best of intent, but we are concerned that the likely unintended consequences of these complex and often experimental proposals would outweigh any benefits.

Second, we think the SEC's economic analyses are not sufficiently robust. In particular, in a number of areas, the analyses are based upon unrealistic assumptions. We think that they do not adequately consider a variety of risks and that they sometimes assert uncertain and theoretical benefits with little support. Additionally, the analyses underestimate or do not adequately consider the significant personnel, technology, systems, and compliance costs that the proposals would impose on market participants. Finally, the analyses rely heavily on data not made available to market participants, academics and others to independently evaluate.

Third, the SEC does not adequately explore the connections between its four proposals. Each individual proposal cannot be considered in a vacuum given that each one intersects with the others in important ways. Some of the intersections may not be evident until after the rules are in effect and operational. In some areas, the proposals even seem to be in outright conflict with each other. We are concerned that the Commission might not fully understand the nuanced and unpredictable ways that these proposals, each of which is highly complex in its own right, would interact with each other. We believe a thorough analysis of the cumulative impact of these proposals is critically important to assessing whether they actually would benefit markets and investors.

Below we provide further background on UBS to provide greater context on why these proposals are highly impactful to our businesses and clients in the United States and to the marketplace in general. We then highlight key issues in each of the proposals that we believe warrant additional focus.

In addition to our internal views, we strongly agree with the comment letter submitted today to the SEC by the Securities Industry and Financial Markets Association ("SIFMA"), as well as the joint comment letter that we submitted with Cboe Global Markets, State Street Global Advisors, T. Rowe Price, and Virtu Financial, Inc. on March 24, 2023.

Background

UBS AG, a subsidiary of UBS Group AG, operates three main lines of business in the United States - its Wealth Management USA business primarily operates through UBS Financial Services Inc. ("UBSFS"), its investment banking business primarily operates through UBS Securities LLC ("UBS Sec LLC"), and its global asset management business primarily operates through UBS Asset Management (Americas) Inc. ("UBS" is used throughout in reference to the UBS business in the United States.)

UBSFS is dually registered as a broker-dealer and an investment adviser and is one of the largest securities firms in the United States. As of December 31, 2022, UBSFS and its related U.S. entities had invested assets totaling approximately $1.6 trillion and close to 12,888 employees, including a network of approximately 5,993 financial advisors.

UBS Sec LLC is a registered broker-dealer and a member of the Financial Industry Regulatory Authority ("FINRA"), the New York Stock Exchange, Inc. ("NYSE"), NASDAQ, and other principal exchanges. In addition, UBS Sec LLC provides a full range of investment banking services and is a registered futures commission merchant, a member of certain major United States and foreign commodity exchanges and a primary dealer in United States Government securities.

Comments

I. Disclosure of Order Execution Information

As previously noted, we are supportive of increased transparency and disclosure regarding execution quality, and we are broadly supportive of the SEC's proposed changes to Rule 605 disclosures.

II. Regulation Best Execution

A. Unclear What Problem This Proposal is Trying to Solve

UBS strongly supports a robust best execution standard. Under applicable FINRA and the Municipal Securities Rulemaking Board ("MSRB") rules, brokers already are subject to best execution requirements that require them to exercise reasonable diligence to execute customer orders in the best market so that their customers receive the most favorable prices under prevailing market conditions. In UBS's case, UBSFS and UBS Sec LLC are each subject to independent best execution obligations. In addition to best execution, the handling of customer orders is subject to a variety of other requirements, including FINRA Rule 5320, which generally provides that a firm handling a customer order in an equity security is prohibited from trading that security on the same side of the market for its own account at a price that would satisfy the customer order, unless the firm immediately executes the customer order up to the size of its own order at the same or better price. Additionally, the SEC and self-regulatory organizations ("SROs") like FINRA have adopted additional rules and regulations (e.g., the limit order display rule) to further protect customers and help promote high quality executions. More generally, the broker-dealer industry is as comprehensively regulated as any industry in the United States.[2]

We do not think the Commission clearly states what issue or problem it is trying to solve. It does not assert that customers are not receiving best execution today or that FINRA is failing to properly enforce its best execution rule. The Commission even acknowledges that it "lacks

[2] The SEC Study on Investment Advisers and Broker-Dealers required more than 40 pages just to describe the myriad of statutes, rules, judicial decisions, and interpretations that regulate almost every aspect of a broker-dealer's conduct, the multitude of remedies available whenever there is a violation, and the parallel regulatory regime under state law. SEC, *Study on Investment Advisers and Broker-Dealers*, pgs. 46–80, 80–83, 88–91 (Jan. 2011), https://www.sec.gov/news/studies/2011/913studyfinal.pdf

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detailed data on broker-dealers' current order handling practices and documentation practices that would allow it to predict the extent of changes as a result of this proposal."[3] The SEC currently has the authority to enforce compliance with FINRA's rules and can acquire this information from firms or through FINRA. We encourage the SEC to first review the brokers' current practices and their compliance with the existing FINRA best execution standard before proceeding with highly prescriptive rulemaking that conflicts with that standard in ways that could be harmful to investors. We believe a further review of existing practices would demonstrate to the Commission that the current standard of FINRA best execution (and compliance by broker-dealers with that standard) is working well.

Finally, we think the SEC understates the importance of competitive pressures under the current market structure. The wholesaler business is an extremely competitive one. Retail brokers regularly and rigorously evaluate the overall quality of the executions received on their customers' orders and make routing decisions that are designed to maximize the benefits for their customers based on the execution quality delivered. Retail brokers can and do move order flow from one wholesaler to another based on execution quality.

B. Conflict with FINRA Best Execution

Under the current FINRA standard of best execution, broker-dealers must consider several factors – not just price – in fulfilling their best execution obligations. The considerations include execution speed, price and size improvement, and overall execution quality. A broker does not know in advance where it can get best execution for a customer transaction. It relies upon statistical analysis and professional judgement as part of a best execution process. For a given transaction, best execution could mean the best price, the fastest trade or the one most likely to be completed.

The existing FINRA standard of best execution is principles-based and wholistic. This differs from the new SEC proposal, which is much more prescriptive. The SEC proposal does nominally take some of the language of the FINRA standard, indicating that brokers should consider other factors (like speed) besides price improvement. However, it essentially subverts the flexibility of that standard with prescriptive language, including with the expectation/guarantee that wholesalers provide liquidity at midpoint. We discuss in greater detail below why this is an unrealistic expectation, but the broader point is that prescriptive language like this undermines the core principle that brokers should consider a variety of factors when seeking best execution. The proposal seems to be built on an unrealistic expectation that every customer order can and should be executed like a 100-share market order for a stock like Apple. We think that approach is misguided. Given the complexity and variation of the US securities markets, brokers should be allowed to deliver best execution in both a customer-specific and security-specific manner that is not constrained by an overly prescriptive standard.

C. Providing Mid-point Liquidity is Unrealistic and Involves Considerable Risk

We think the SEC's expectations for accessing midpoint liquidity are unrealistic. Midpoint liquidity is non-displayed, meaning that broker-dealers are unable to observe or assess midpoint liquidity on a market center's order book. The primary way for a broker to identify non-displayed liquidity is to route customer orders to each venue trading a security. In practice, this would require a wholesaler to ping dozens of individual exchanges or ATSs to see if midpoint liquidity was available on those venues.

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[3] SEC, *Regulation Best Execution* (December 2022), pg. 305, https://www.sec.gov/rules/proposed/2022/34-96496.pdf

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Pinging for midpoint liquidity involves considerable risks, including the risk of information leakage and the risk that prices may move during the price discovery exercise. These risks are heightened in more volatile markets. The SEC has even acknowledged these risks: "Pinging for midpoint liquidity at multiple venues could increase the risk of information leakage or that prices may move, possibly resulting in some market participants canceling midpoint orders they posted."[4] Given the dangers that could arise from widespread pinging for mid-point liquidity, we urge the SEC to reconsider this problematic requirement.

This de facto requirement also potentially conflicts with the SEC's order competition proposal, which would require equity orders of retail investors routed to wholesalers to be exposed to auctions before being eligible to be executed internally by a wholesaler. Under the language of the two proposals, it is unclear whether wholesalers would be expected to route segmented orders to seek midpoint (or better) liquidity before routing to a qualified auction or whether routing to a qualified auction should be a first step. The best execution proposal suggests the former, which comes with the considerable attendant risks of information leakage and adverse price movement.

D. Not Appropriate for Fixed Income and Other Asset Classes

As noted above, we have a variety of concerns with respect to how the SEC's proposed best execution requirements would apply to equity markets. These concerns are heightened with respect to their application to fixed income, private securities and other markets. The SEC's proposal appears to have been drafted primarily with equity markets in mind. This one-size-fits-all approach does not recognize the substantial differences in market structure between equity markets and fixed income and other markets.

Notably, nearly all fixed income trades are executed on a principal basis. Unlike the secondary trading markets for equities, which operate largely on an agency basis, the bond market is a dealer market where market makers provide liquidity from their principal trading books. The SEC's proposal would treat virtually all fixed income transactions as conflicted simply because fixed income market structure is different from equity market structure.

Finally, given that there are no continuous two-sided quoted markets for a large percentage of fixed income products, it is even more important that the standard of best execution be principles based and consider more than just price improvement. In a dealer-centric market like fixed income where indications, trade runs and some quotes are not firm, it is vitally important for brokers to consider fill rates, firmness of liquidity, speed of execution, and the willingness of market participants to provide additional liquidity.

E. Problematic Categories of Conflicted Transactions

We have concerns about the arbitrariness of some of the categories of transactions that are deemed conflicted.

First, as mentioned, the fixed income market is a dealer market. Trades typically are executed on a principal basis, often for institutional clients that are very sophisticated when it comes to pricing and highly discriminating as fiduciaries. The SEC's proposal would classify all of these trades as conflicted. We are concerned that calling these transactions into question would undermine the current fixed income market structure and make it more difficult for broker-dealers to service their clients at a high level (*i.e.*, provide them with best execution). We think that trying to steer the fixed income market from principal transactions to agency transactions would introduce

[4] SEC, *Regulation Best Execution* (December 2022), pg. 246, https://www.sec.gov/rules/proposed/2022/34-96496.pdf

unnecessary intermediation (*i.e.*, added costs, latency, and friction in the execution process) while also failing to improve the quality of execution.

Second, all transactions involving payment for order flow ("PFOF") would be considered conflicted. UBSFS does not accept payment for order flow from other broker-dealers, though UBSFS may receive PFOF in the form of rebates from certain exchanges. Under its order competition proposal, the SEC would require retail orders to be routed to a qualified auction. As the exchanges are permitted do today, those auctions may provide rebates or other volume-based discounts. This would create a paradox where one proposal would mandate that retail orders be sent to auctions at the same time another proposal would deem transactions executed on auction venues with rebates to be conflicted.

Third, we have concerns about the blanket categorization of all affiliate transactions as being conflicted. Our wealth management unit (UBSFS) uses automated systems to route and execute most customer orders. As a matter of efficiency and to realize economies of scale, those automated routing systems are operated and maintained by UBSFS's affiliate, UBS Sec LLC. The system directs UBSFS's customer orders to various venues consistent with UBSFS's instructions. This arrangement allows UBSFS to take full advantage of UBS's resources, notably the smart order router technology and extensive market connectivity that UBS Sec LLC developed and maintains through dedicated personnel. Given that UBS Sec LLC's automated systems are routing orders in a purely agency capacity consistent with the instructions of UBSFS, we think the SEC should make clear that this type of arrangement falls outside the conflicted transaction definition.

F. Unclear Requirements for Conflicted Transactions

In addition to questioning the types of transactions that are considered conflicted, we also have concerns about the lack of clarity in the requirements for handling those types of transactions. For conflicted transactions, the SEC has stated that brokers must look for additional sources of liquidity. We are unclear how a broker should demonstrate that it has diligently fulfilled this obligation. In particular, it is unclear what other venues would need to be examined, especially given that the baseline best execution standard already requires brokers to consider material liquidity sources. The additional duty to look for non-material liquidity sources is vague and would not meaningfully benefit investors or address any perceived conflict. Indeed, requiring brokers to examine more venues could lead to greater information leakage and slower executions, which ultimately would harm investors. We do not think the Commission's analysis adequately considered these potential costs to or detrimental effects on broker-dealers and their investor customers.

III. Order Competition Rule

UBS has long been supportive of competition and innovation in our capital markets. However, we think that adding a retail auction requirement will likely harm competition and result in inferior execution quality for retail investors.

A. No Obligation to Fill Under Auctions

Under today's market structure, orders from retail investors are executed nearly instantaneously at better-than-quoted prices. What's more, the agreements between wholesalers and retail brokers obligate them to execute retail orders from that broker. When a retail broker directs a customer order to a wholesaler, the retail broker can rely on the execution of that order. The wholesaler will either fill the order from internal liquidity or seek a fill from external sources of liquidity. The SEC's proposed mandate for retail auctions essentially would eliminate the certainty of execution that currently exists for retail customers. In a qualified auction, market makers and other participants would only have the option – not the obligation – to interact with retail orders.

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The lack of this guarantee would be particularly problematic with respect to orders for volatile or illiquid securities or even for orders for liquid securities in volatile market conditions. Moreover, the cut-off size for segmented orders is $200,000, which means large orders up to that size submitted by retail customers would be mandated to visibly trade in a public auction rather than being executed in a potentially more thoughtful manner. Such orders could be left unfilled or subject to inferior execution.

B. Rationale for this Proposal is Based on Flawed Analysis

As noted, we believe the current US equity market structure is competitive and efficient and provides retail investors with low costs and price improvement over public markets. Under its order competition proposal, the SEC would require equity orders of retail investors routed to wholesalers to be exposed to auctions before being eligible to be executed internally by a wholesaler. The Commission asserts that the price improvement provided by market markers falls short of what would be expected if these orders were subject to order-by-order competition. The Commission speculates that this missed price improvement, which it calls a "competitive shortfall," amounts to approximately $1.5 billion annually. Leaving aside our concerns about the apparent conflicts between the SEC's auction mandate and its own best execution proposal, we think there are flaws in the SEC's analysis.

First, the SEC's analysis assumes that all segmented orders under $200,000 would be exposed to a qualified auction and executed. However, as we note above, there is no guarantee that orders will be filled under an auction. The SEC conducts no analysis of the impact of how thinly-traded stocks – or even liquid stocks in volatile market conditions – may be left unfilled or executed at a worse price. The absence of such analysis suggests the SEC assumes that every order submitted to a qualified auction will be executed at a favorable price. Yet, it is important to note that the pricing/spread, liquidity and activity profiles of National Market System ("NMS") securities are highly dispersed, and not every stock trades like a Dow Jones Industrial 30 component. Furthermore, the SEC's analysis does not take into consideration how liquidity providers may change their behavior in response to this proposal (or the SEC's other proposals) and might elect not to offer the same level of fill rates or price/liquidity improvement that exist today. While the SEC "acknowledges that there is considerable uncertainty in these estimates,"[5] it doesn't conduct any detailed analysis to explore the range of the potential impacts. Without a balanced consideration of potential drawbacks and downsides, we are concerned that these proposals may be underpinned by a mistaken assumption.

Second, the SEC overestimates the appetite of institutional investors to participate in these auctions for relatively small retail orders. It is unlikely that institutional investors would be interested given both the considerable operational and technological investment required to be participants and the risk of information leakage from participating in the auctions.

Third, the SEC does not consider a variety of operational costs and risks. Notably, the proposal does not consider the impact of what would happen to retail orders if an exchange that was the sole host of a qualified auction for a particular security experienced a systems outage or failure like the recent outage at NYSE. In the case of such an outage, retail investors seeking to transact in the impacted security could be exposed given the strict liability limit that exchanges have (but other market participants do not). If the SEC plans to mandate an auction model upon brokers and retail investors across the US equity markets, it should revise the limited liability of exchanges to ensure that investors are more adequately protected from the types of operational failures that can occur at the exchanges.

[5] SEC, Order Competition Rule (December 2022), pg. 259, https://www.sec.gov/rules/proposed/2022/34-96495.pdf

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Fourth, we don't believe the SEC adequately considers the adverse consequences associated with the "winner's curse"[6] in an auction process. Under the SEC's proposal, a market participant who wins a particular auction could ultimately be disadvantaged because everyone else in the market will know that the trade is completed. We think this information leakage, which would be repeated auction after auction, would result in wider bid-ask spreads over time. As one recent academic study concludes: "the participant who wins by outbidding all competitors with less optimistic signals suffers the auction winner's curse. Participants scale back their bids and obtain increased welfare in the order-by-order system. Retail investor welfare can decrease in the switch to order-by-order trading, particularly for volatile stocks and stocks with few competing liquidity providers."[7] So, while auctions generally have proven to be efficient during the opening and closing of the market, we have doubts that the same benefits will be reliably replicated during the millions of intra-day auctions that would be expected to occur under the SEC's plan.

Fifth, having multiple qualified auction venues competing to run potentially millions of intra-day auctions would further fragment the marketplace. The multiplicity of auction venues and auctions would benefit those firms that are able to compete on speed and technological capabilities.

Finally, we think the SEC's analysis downplays potential direct costs (like the elimination of zero commissions) on retail investors. The SEC does acknowledge that the proposal would reduce the amount of PFOF that wholesalers pay to retail brokers. In recent years, that PFOF has helped foster an environment where zero commissions are prevalent among online trading accounts offered to retail investors. The SEC believes that broker-dealers would not begin charging commissions because many do not do so today. We think that presumption is incorrect and ill-founded. We expect that retail brokers would need to respond to the reduction of PFOF revenues by charging commissions to offset the revenue shortfall and to maintain their state-of-the-art technical infrastructure and market data intakes. The re-introduction of these direct costs on investors, following a widely heralded era of no-fee trading, would counteract the highly uncertain benefits of mandated auctions.

We are concerned that a re-introduction of these direct costs ultimately could lead to a reduction in retail investor participation in our capital markets. That result would be detrimental to society at large because individuals would be discouraged from directly participating in US equity markets, which have been a vital engine of wealth creation for millions of ordinary investors for generations. At a time when Congress is encouraging Americans to save for greater retirement security (e.g., the recent bipartisan passage of the Secure Act 2.0), the real-life results flowing from the SEC's proposal would run counter to that laudable goal.

C. Broker-Dealer Routing Requirement Exception for Other Trading Units

UBS handles order flow for retail customers as well as a broad range of institutional clients. In the interest of ensuring fair and open competition, the SEC outlines certain requirements that broker-dealers must follow when routing segmented orders. Specifically, the proposal prohibits a broker-dealer with knowledge of a segmented order from submitting an order (or having another person submit an order on its behalf) to a qualified auction in the same security.[8] While the

[6] The Commission does mention the concept of winner's curse, but it suggests the problem would be addressed by proposal's requirement that all market participants in the auction know the identity of the originating broker. SEC, Order Competition Rule (December 2022), pg. 109, https://www.sec.gov/rules/proposed/2022/34-96495.pdf

[7] Ernst, Thomas; Spatt, Chester; and Sun, Jian, "Would Order-By-Order Auctions Be Competitive?" (Nov. 23, 2022), pg. 6, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4300505

[8] "In particular, it would prohibit a broker-dealer with knowledge of where a segmented order is to be routed from submitting an order, or enabling an order to be submitted by any other person, to the continuous order book of an open competition trading center or of a national securities exchange that

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policy goal of this prohibition is understandable, we think the SEC should provide a "no knowledge" exception for other trading desks within a broker-dealer that would not know about a given segmented order. By doing so, the SEC would provide helpful clarity and certainty without compromising its goal. The concept of information barriers is well understood and recognized today for various regulatory purposes (*e.g.*, Regulation SHO and FINRA Rule 5320). In the context of Regulation SHO, many broker-dealers maintain information barriers and separation between different trading desks as part of their aggregation unit plan. The lack of an explicit no-knowledge exception potentially would be disruptive if a broker-dealer were to impute knowledge of a segmented order across its firm. If this were to occur, trading desks unconnected to the submission of segmented orders would be unfairly prevented from transacting in a normal fashion. That also could potentially interfere with the way firms provide best execution for non-segmented order flow received from institutional clients.

D. Problematic Requirements for ATSs to become Open Competition Trading Centers

While we agree with some of the requirements for ATSs to qualify as an open competition trading center, we have concerns about others. We appreciate the desire to create a level playing field among venues hosting qualified auctions. However, we are concerned that some aspects of the proposal would require ATSs to look like clones of national securities exchanges in order to be eligible to run qualified auctions. The SEC historically has recognized fundamental differences between exchanges and ATSs and enabled such variations in the spirit of fostering a diverse and competitive marketplace. Creating a series of requirements that are highly unpalatable and could be practically unachievable for ATSs would dominate the operation of the qualified auctions that the SEC has proposed.

We agree with the requirements that an ATS running a qualified auction have at least 1% market share in four of the previous six months and be subject to Regulation SCI. The 1% level is a meaningful benchmark and demonstrates the ATS is a substantial and known source of liquidity for market participants.

We don't think an ATS should need to display their continuous order book during the core trading session (generally 9:30 am to 4 pm). The cost to continuously maintain a two-sided lit quote is substantial and would discourage ATS venues from competing. Instead, the ATS should be required to disseminate auction messages and an imbalance feed through an SRO's display facility, such as the FINRA Alternative Display Facility. Taking this more limited approach would permit ATSs to largely continue their operations in the manner preferred by subscribers while also ensuring the ATSs are part of the public quote stream for purposes of inviting responses to qualified auctions.

We do not think an ATS should be required to provide equal access to all brokers for all features and services of the ATS platform. Given that ATSs do not enjoy the same powers, benefits, and privileges afforded to exchanges, we think that ATSs should be permitted to exercise reasonable control over their subscriber roster in accordance with written policies and procedures. However, we agree that the equal access requirements should apply to qualified auctions so that all market participants have the ability to participate in that type of execution opportunity hosted by an ATS.

IV. Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders

could have priority to trade with the segmented order at such open competition trading center or national securities exchange." SEC, Order Competition Rule (December 2022), pg. 127, https://www.sec.gov/rules/proposed/2022/34-96495.pdf

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UBS is broadly supportive of the SEC reviewing and evaluating changes to tick size increments in the US equity market. We generally agree that a one-size-fits-all approach to tick sizes is not optimal. We think smaller tick sizes are appropriate for stocks that are currently tick-constrained, which the SEC defines as having a time-weighted average quoted spread of 1.1 cents or less. We favor a more gradual and phased approach for smaller price increments that would focus on more tick-constrained stocks.

We are concerned that the granularity of the SEC's proposed tick increments would create unnecessary complexity. We encourage the SEC to comprehensively review its proposed changes to tick sizes, access fees and round lots to better evaluate how these changes together would impact liquidity. UBS has previously supported bringing down access fees in a measured fashion in conjunction with adjusted tick sizes. However, the current proposal does not outline the rationale for bringing down those access fees to $0.0010 and $0.0005. As highlighted below, we are concerned with how exchanges would be able to incentivize market makers to provide on-exchange liquidity with such low access fees (and therefore such low rebates).

A. Impact Analysis

Under the current equity market structure, a one penny tick applies to all US stocks priced above $1. The SEC proposes a new schedule of minimum tick sizes for quoting and trading that would apply uniformly across execution venues (*i.e.*, exchange and off-exchange) and would vary depending on the liquidity of the stock (based upon the size of the quoted spread). For some stocks, the tick size under the SEC's proposal would be as little as 1/10 or 2/10 of a penny. We are concerned about the potential unintended consequences of introducing such a complex and comprehensive tick-increment system, particularly alongside other proposed changes (notably to round-lot sizes and rebate caps). We are concerned that this would impact the value of providing liquidity on public markets and consequently would raise costs for investors.

Specifically, we believe that introducing tick sizes that are significantly smaller than what is currently available (*e.g.*, 1/10 or 2/10 of a penny) could reduce the liquidity available for trades exceeding standard round-lot sizes. While small tick-size increments may provide a more precise price discovery mechanism for round-lot sizes, it could reduce the value of providing liquidity in larger quantities. We see two main reasons for that likely outcome. First, the value for market participants of providing liquidity at a specific price point on the order book is generally proportional to the size of the queue length. With reduced queue sizes, there would be less value for market participants to be at the front of the queue. Second, such small tick sizes would provide less costly opportunities for a market participant quickly providing de minimis price improvement off the NBBO to trade in front of a larger displayed order. The likely consequence would be fewer incentives to provide liquidity at larger sizes (the likelihood of a new price point forming just in front of a larger, displayed, order would be much higher) with little benefit. Given the de minimis nature of price improvement provided compared to the bid-ask spread, the value of consuming any additional liquidity would be negligible for investors.

In support of this position, as detailed in Table 1 below,[9] we have analyzed the trading cost (of a marketable order in basis points ("bps")) at different dollar sizes for more tick-constrained stocks (*SpreadBin* 1) and for less tick-constrained stocks (*SpreadBin* 2). Consistent with the proposal, we model the expected new tick-size based on the time-weighted bid-ask spread of each stock. We use the marketable price as a proxy for execution cost. While a tighter price in a smaller dollar amount may offer the opportunity to slice a larger trade into smaller orders, that process would involve uncertainty in both the probability of being filled and in the prices at which those orders would be executed.

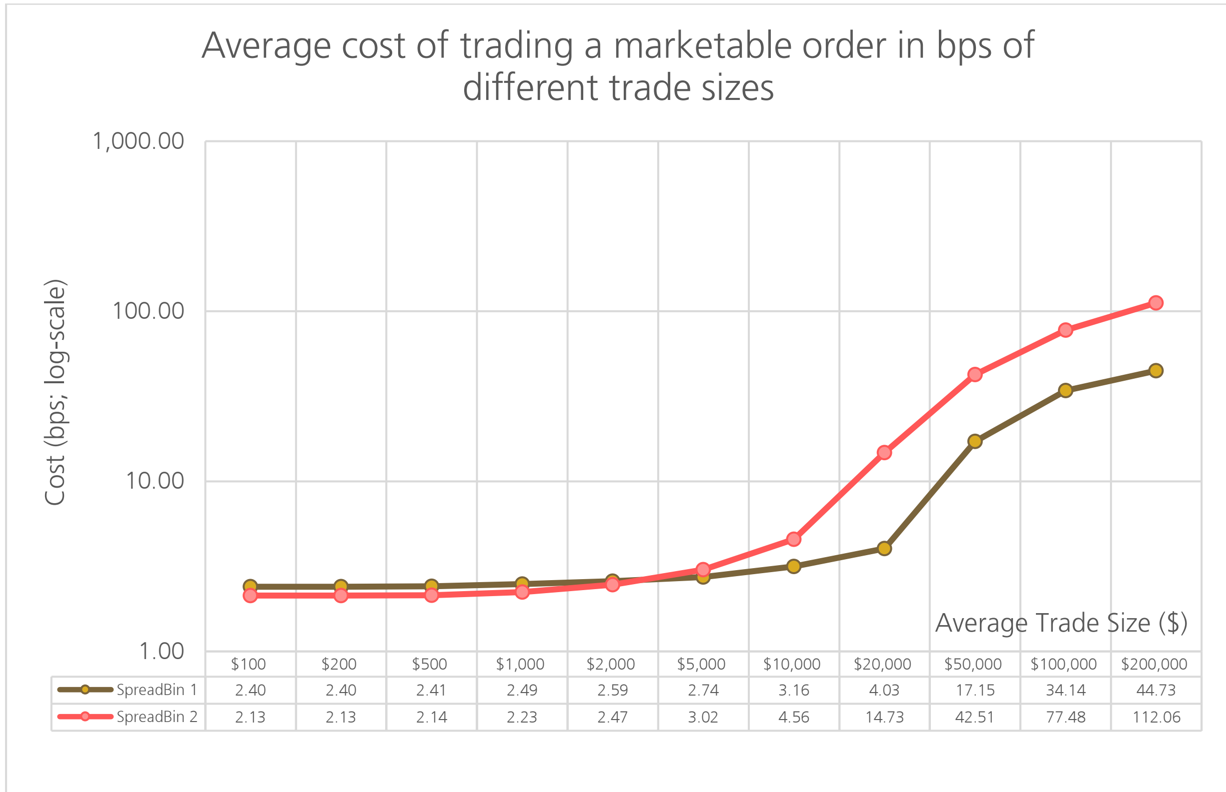
[9] Our analysis is based on one week of data: 2023.01.09 - 2023.01.13; names are restricted to a close price between $1 and $1000; the new tick size is the expected minimum tick size from the SEC's proposal.

SpreadBin	Spread Range	New Tick Size	Number of Names	ADV (B)	Turnover ($B)	Average Spread (bps)	Median Price	SPX Pct	R3000 Pct
1	<=$0.016	$0.0020	1,326	4.66	118.37	4.35	8.76	0.22	0.23
2	($0.016, $0.04]	$0.0050	1,681	1.39	87.2	3.1	12.41	0.22	0.25
3	>$0.04	$0.0100	3,715	1.1	116.65	8.32	27.21	0.56	0.52

Table 1: Spread bins clustered by expected new tick sizes based on the time-weighted bid-ask spreads from 2023.01.09 to 2023.01.13; source: UBS.

In Chart 1[10] below, we can see the effect of tick constraints by comparing the average marketable cost[11] across different trades sizes for *SpreadBin* 1 and *SpreadBin* 2.[12] For small trade sizes, *SpreadBin* 1 exhibits marginally wider spreads compared to *SpreadBin* 2 (2.1 bps for the latter versus 2.5 bps for the former). As the trade sizes increase, the difference in cost of trading narrows. It inverts for orders larger than $3,000. For orders over $10,000, the spread for *SpreadBin* 1 is 1.4 bps less than *SpreadBin* 2. This effect is expected since a relatively wider tick size would incentivize liquidity providers to post orders. A significant reduction in minimum tick size might shift stocks from *SpreadBin* 1 to *SpreadBin* 2, which would result in a slightly tighter price for relatively smaller trades at the expense of a wider spread for larger trades.[13]

[10] Chart 1 is based upon a logarithmic scale.
[11] The average marketable cost of a trade is computed by: (a) sampling a one second period in all 10-minute intervals for each name each day, retrieving all 10 levels of the order-books for all venues for names in the two spread bins, ignoring odd-lots; (b) consolidating all quotes to get (cumulative/simple) average price/cost in bps for each level; and (c) for a given average dollar amount (e.g. $100, $200, etc.), calculating the *market-cap weighted* dollar amount for each name, and map to the consolidated order-book to get the marketable cost, aggregated the cost by notional for each spread bin.
[12] *Spread Bin* 3 was left out from the chart given that it is unlikely that stocks in this group would be impacted by this proposal on tick sizes.
[13] To provide a view of the same analysis in shares (instead of $), the first bucket of average investment of $100 represents an average of 5 shares for *SpreadBin* 1 and 2 shares for *SpreadBin* 2; the crossover point just below $4,000 is equivalent to an average of 180 shares for *SpreadBin* 1 and 80 shares for *SpreadBin* 2. In essence, a market participant wishing to execute a marketable order of over 180 shares in the week of January 9th 2023 would be best served by tick-constrained stocks in terms of bid-ask spread cost as a percentage of dollars invested.



	$100	$200	$500	$1,000	$2,000	$5,000	$10,000	$20,000	$50,000	$100,000	$200,000
SpreadBin 1	2.40	2.40	2.41	2.49	2.59	2.74	3.16	4.03	17.15	34.14	44.73
SpreadBin 2	2.13	2.13	2.14	2.23	2.47	3.02	4.56	14.73	42.51	77.48	112.06

Chart 1: average approximate marketable cost to execute trades of varying sizes, sampled every 10 minutes for 2023.01.09 – 2023.01.13; source: UBS.

B. Smaller Price Increments Result in Less Liquidity

We are concerned that finer price increments would be dilutive and cause less liquidity to be displayed on the order book, which would make it more costly to trade larger-sized orders. In conjunction with reducing rebates and significantly lowering tick sizes, market makers will be less incentivized to post liquidity out loud due to more adverse selection and lower rebates. Reduced bid/ask sizes at the touch may negatively impact institutional investors that typically trade in greater size. The result could be more costly executions for investors if desired liquidity is tougher to access. We also think higher trading costs for institutional investors would have knock-on effects, such as lower returns for millions of investors who participate in the market through pension plans, mutual funds, ETFs and the like.

C. Significant Increase in Market Data Favors Highly Sophisticated Participants

As proposed, the 1/10 and 2/10 tick increments would generate a significant amount of additional market data. It is unclear how the market would be able to handle the increased messaging and capacity requirements, particularly during periods of stress. The cost for market participants of handling and storing this additional data would be extremely high. This increase in market data would benefit market participants that have the technological capabilities to be able to respond quickly to changing quotes, therefore making market data even more valuable. That would further concentrate activity and unintentionally favor highly sophisticated market participants that have the financial and technological wherewithal to compete and flourish in a potential trading systems arms race.

D. Operational Challenges

Under the SEC's proposal, the tick increments for a security would not be permanently fixed and would be evaluated by the primary listing exchange for potential adjustment on a quarterly basis. A flexible approach to setting tick sizes to better reflect changes in trading dynamics for each security might offer benefits, but there is a tipping point where the resulting burdens on broker-dealers and other market participants would outweigh such benefits. Monitoring quarterly evaluation decisions by exchanges for every NMS security and subsequently adjusting all internally affected order entry/routing and trading systems (as well as trading algorithms) would consume considerable resources and create operational risk. We think an annual evaluation performed by the exchanges would be sufficiently frequent and would strike an appropriate balance.

Conclusion

We appreciate the opportunity to provide comments on the proposals and appreciate the Commission's consideration of our comments. Although we believe that the existing equity market structure is world class and efficient, and provides investors (particularly retail investors) with low costs and price improvement, we are supportive of potential changes that could improve efficiency and outcomes for investors. However, we have serious concerns about the complexity and potential unintended consequences of the wholesale overhaul that the Commission is proposing. We agree with SIFMA that the SEC should take a more gradual and incremental approach of adopting the proposed changes to order execution disclosures and studying the data produced by those updated disclosures before moving forward with other market structure changes.

Sincerely,

Naureen Hassan
President
UBS Americas

Robert Karofsky
President
UBS Investment Bank

Suni Harford
President
UBS Asset Management

cc:
Gary Gensler, Chair
Hester M. Peirce, Commissioner
Caroline A. Crenshaw, Commissioner
Mark T. Uyeda, Commissioner
Jaime Lizárraga, Commissioner