



June 1, 2020

Via Electronic Mail (rule-comments@sec.gov)

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

***RE: File No. S7-03-20; Release No. 34-88216
Market Data Infrastructure***

Dear Ms. Countryman:

TD Ameritrade, Inc.¹ (“TD Ameritrade” or “the Firm”) appreciates the opportunity to provide comments concerning the U.S. Securities and Exchange Commission’s (“Commission”) proposed amendments to 17 CFR 242, Rules 600 and 603 and adoption of new Rule 614 of Regulation National Market System (“Regulation NMS”) under the Securities Exchange Act of 1934 (“Exchange Act”) to update the national market system for the collection, consolidation, and dissemination of information with respect to quotations for and transactions in national market system (“NMS”) stocks (“NMS information”).²

As a broker providing more than 12 million client accounts access to the U.S. markets, TD Ameritrade’s goal is to deliver a consistent, quality experience by providing clients trading tools and platforms utilizing a mix of consolidated top-of-book and depth of book data. The Firm’s clients range from self-directed retail investors to independent registered investment advisors representing a diverse community of individuals and professionals with different trading and investment needs. TD Ameritrade provides consolidated top-of-book data across all its platforms. TD Ameritrade is one of the largest redistributors of market data provided through the current securities information processors (“SIPs”). Given its business model of making SIP consolidated data widely available to the individual retail investor, the Firm provides a unique perspective concerning market data feed content and the SIP infrastructure.

¹ TD Ameritrade, Inc. is a wholly owned broker subsidiary of TD Ameritrade Holding Corporation (Nasdaq: AMTD). AMTD has a 44-year history of providing financial services to self-directed investors. TD Ameritrade provides investing services and education to over 12 million client accounts, totaling approximately \$1.2 trillion in assets, and custodial services for more than 7,000 independent registered investment advisors. As a leader in U.S. retail trading, TD Ameritrade executes an average of approximately 2 million daily average revenue trades per day for our clients.

² See *Market Data Infrastructure*, Release No. 34-88216 (Jan. 8, 2020), 85 FR 16726 (Mar. 24, 2020) (“*The Proposal*”).

TD Ameritrade appreciates the Commission's request for comments regarding its Proposal to further define and expand the content of NMS information and to amend the method by which such NMS information is collected, calculated and disseminated by introducing a decentralized consolidation model where competing consolidators replace the SIPs.

Executive Summary

TD Ameritrade recognizes the efforts of not only the Commission, but also the Plan Administrators, Operating Committees and Advisory Committees, in identifying issues regarding the current market data infrastructure and proposing reforms aimed at strengthening the current Plans.³ TD Ameritrade appreciates the Commission's efforts to modernize market infrastructure and generally agrees with the spirit of market data structure reform. Although the financial market landscape will inevitably change with time, it is important that the adopted rules remain a clear and consistent guidepost to prevent ambiguity and unintended future consequences.

In summary, the Proposal establishes the notion that adding data to the SIP feeds and reducing the latency are requirements for a sound market data ecosystem. The Firm agrees that improvements can be made in some areas to help protect investors, particularly the retail investor. Specifically, the Firm agrees that:

1. market data terminology needs to be clearly defined, with specific data elements being categorized;
2. a common odd-lot aggregation logic should be employed by all exchanges for the purpose of displaying meaningful size; and
3. a competing consolidator model *should* drive down overall market data industry costs and improve resiliency, as it is expected that natural market forces should produce better results than the current system and its shortcomings, without competitive alternatives.

However, the expansion of the definition of core data will not benefit the retail investor but will likely generate significant confusion and cost increases. This can be avoided while still including the additional information under the larger definition of Consolidated Market Data. The Proposal to redefine the term "round lot," along with its disassociation from the protected quote, is anticipated to have the worst consequence of all proposed changes – by potentially damaging retail investor trust in public markets. Lastly, the Firm has concerns surrounding the current competitive model proposal for "competing consolidators" given the significant unknowns around data quality, availability, reliability and potential for significant additional cost present in such a model that will not fall under the governance of a new Equity Data Plan. Therefore, the Firm believes that on balance, the potential detrimental impacts of the Proposal significantly outweigh any benefits to the retail investor.

Although the Proposal requests comments on 297 questions, this comment letter addresses those that TD Ameritrade believes are likely to impact the retail investor.

³ See Consolidated Tape Association at <https://www.ctaplan.com/oddlots> requesting comment for the addition of odd lots to the tape and <https://www.ctaplan.com/pillar> for information regarding the migration of the SIP to Pillar, providing lower latency of CQS and CTS data.

Definitions and Expanded Content

Consolidated Market Data

The Firm agrees that SIP data elements need to be clearly defined and categorized. Distinct data categories with tight definitions would assist to “preserve the integrity and affordability of the consolidated data stream,” a goal the Commission stated was one of their most important when adopting Regulation NMS.⁴

Therefore, the Firm agrees with the addition to Section 242.600 of the proposed definition for Consolidated Market Data, which includes: (1) core data; (2) regulatory data; (3) administrative data; (4) exchange-specific program data; and (5) additional regulatory, administrative or exchange-specific program data elements defined as such pursuant to the effective national market system plan or plans required under Section 242.603(b).⁵ The Firm understands the Proposal to mean that all data incorporated within this definition, regardless of the sub-category assigned, must be collected, consolidated, and disseminated pursuant to Regulation NMS.

Core Data

Like Consolidated Market Data, the Firm agrees that core data should also be defined under Regulation NMS. The Proposal notes specifically “the Commission is not requiring broker-dealers to subscribe to or utilize every component of proposed consolidated market data to meet their regulatory obligations.”⁶ The Firm agrees with this approach, but notes that all market participants likely will be required to receive and process a feed containing the defined core data to meet their regulatory obligations. Historically “core data” generally has been defined and recognized in the industry as “(1) the price, size, and exchange of the last sale; (2) each exchange’s current highest bid and lowest offer, and the shares available at those prices; and (3) the national best bid and offer (*i.e.*, the highest bid and lowest offer currently available on any exchange).”⁷ It is also recognized that “[b]rokers responsible for routing customers’ orders . . . clearly must have fair and efficient access to the best displayed quotations of all trading centers to achieve best execution of those orders; core data provides that information.”⁸

⁴ See *Regulation NMS*, Release No. 34-51808, 70 FR 37495 (Jun. 29, 2005) (“*Reg NMS*”) at 37503.

⁵ See *Proposal* at 16868.

⁶ See *Proposal* at 16735 and 16828, stating: “the proposed amendments would not require market participants to receive (or display) the complete set of proposed consolidated market data, and competing consolidators would not be required to deliver all proposed consolidated market data for each data product they offer.”

⁷ See *In the Matter of the Application of Securities Industry and Financial Markets Association and Bloomberg*, Release No. 34-83755 (Jul. 31, 2018), available at <https://www.sec.gov/litigation/opinions/2018/34-83755.pdf> at 3.

⁸ *Id.* at 3 – 4.

Rules including but not limited to Regulation NMS Rules 603, 605, 606 and 611 define the specific data points that must be obtained/used to meet the regulatory requirements. These rules incorporate the need for the quote sizes, NBBO, protected bid and offers, and last sale information for compliance with best execution, routing disclosures and vendor display requirements. Therefore, the only data elements which should be included in the regulatory definition of core data, and required for consumption by Firms, are:

- Quotation sizes;
- Best bid and best offer (same as protected bid and protected offer);⁹
- National best bid and national best offer;
- Transaction reports; and
- Last sale data

Adding more data elements to core data that are not necessary or useful for all consumers compromises the intent of core data and the fair allocation of costs of such data across those which find it useful.

Over the Counter Bulletin Board (“OTCBB”), Corporate Bond and Index Last Sale Information

The Firm does not have concerns about excluding OTCBB, Corporate Bond and Index Last Sale information, currently provided by FINRA through the Trade Data Dissemination Service (“TDDS”), from the requirements for Consolidated Market Data as they are not Regulation NMS securities. The Firm currently receives the TDDS feed in connection with feeds provided through Unlisted Trading Privileges (“UTP”), although it is a separate feed from the UTP SIP feed. If this information will no longer be provided under the umbrella of the UTP-provided services, the Firm needs regulatory assurance that such feed would continue to remain available to the industry in an alternative, substantially similar capacity. Therefore, the Firm requests that the Commission oversee the transition of this feed to any new provider to ensure it remains readily accessible to retail investors. This oversight should include not only the logistics for movement of the feeds, but also the addition of any new agreements and/or fees for the service.

Odd Lot Quotations, Depth of Book, and Auction Imbalance Information

The Proposal notes that unprotected odd lot quotations may be useful to “traders”.¹⁰ The Firm raised its concerns in its recent comment letter to the SIP Operating Committees with respect to the proposal to add odd lot quotations to the tape.¹¹ These concerns included investor confidence in

⁹ See *Reg NMS* at 37533, stating “Rule 600(b)(57), which defines a “protected bid” or “protected offer,” includes three main elements: (1) An automated quotation; (2) displayed by an automated trading center; and (3) that is the best bid or best offer of an exchange, The NASDAQ Stock Market, or an association other than The NASDAQ Stock Market (currently, the best bid or offer of the NASD’s ADF).”

¹⁰ See *Proposal* at 16828, noting “The Commission preliminarily believes that odd-lot quotes are more easily taken advantage of by those traders who can see the quotes.”

¹¹ See *TD Ameritrade Comment Letter to Consolidated Tape Association Odd Lot Proposal*, available at

the markets resulting from confusion over protected vs. unprotected quotes, increased costs and/or latency with respect to core data, and the potential for unforeseen regulatory impacts. Other firms also raised similar concerns with respect to retail investors in response.¹²

The addition of even further information to core data, such as market depth and auction imbalance information which is not necessary or helpful for all investors, also serves as an unnecessary tax on the core data stream and allocates added expense to the industry and investors. Furthermore, inclusion of this information into core data may cause confusion as to what may be required for compliance.¹³

For example, the proposal to include five levels of depth would add ten quotes per security for every exchange, which today amounts to 130 new data points per security.¹⁴ On top of this, the Proposal includes all price levels between the BBO and the protected quote,¹⁵ which for higher priced securities could add hundreds more data points. The Commission notes that this information is currently included in the proprietary feed infrastructure and therefore should not cause added infrastructure investment for participants.¹⁶ Any decision to repurpose the existing proprietary feeds for the new core data feeds, and thus avoiding additional costs, would and should be made as a business decision by the participants themselves.

https://www.theice.com/publicdocs/SIP_Comment_TD_AMTD_redacted.pdf, submitted by Joseph Kinahan on November 15, 2019 (“*TD Ameritrade Odd Lots Letter*”).

¹² See *Schwab Comment Letter to Consolidated Tape Association Odd Lot Proposal*, available at https://www.theice.com/publicdocs/Odd_Lots_Jeff_Star_Charles_Schwab_20191114.pdf, submitted by Jeff Starr on November 14, 2019. See also *Citadel Comment Letter to Consolidated Tape Association Odd Lot Proposal*, available at https://www.theice.com/publicdocs/SIP_Comment_Citadel_redacted.pdf, submitted by Stephen John Berger on November 15, 2019; *SIFMA Comment Letter to Consolidated Tape Association Odd Lot Proposal* at https://www.theice.com/publicdocs/SIFMA_CL_on_CTA_and_UTP_Odd_Lot_Proposal_November_26_2019.pdf, submitted by Theodore R. Lazo on November 26, 2019.

¹³ See *TD Ameritrade Odd Lots Letter* at 5, stating “if the data is readily available in the feeds, there may be future regulatory guidance to digest and disseminate the data. In turn, this may drive unnecessary or unintended change to market structure or investor behaviors.”

¹⁴ As of May 26, 2020, there are thirteen actively quoting exchanges (13*10=130). This estimation does not include additional proposals for exchanges currently pending at different stages in the approval and launch process, such as Long Term Exchange, Miami Stock Exchange and Members Exchange.

¹⁵ See *Proposal* at 16753, stating “Specifically, under proposed Rule 600(b)(25), “‘depth of book data’” would be defined as all quotation sizes at each national securities exchange, aggregated at each price at which there is a bid or offer that is lower than the best bid down to the protected bid and higher than the best offer up to the protected offer; and all quotation sizes at each national securities exchange, aggregated at each of the next five prices at which there is a bid that is lower than the protected bid and offer that is higher than the protected offer.”

¹⁶ See *Proposal* at 16827, stating “The Commission preliminarily believes that there would be limited infrastructure investment required on the part of SROs to provide the information necessary to process and disseminate new core data. This is because the SROs currently provide all elements of new core data over their proprietary feed infrastructure.”

Furthermore, as acknowledged by the Commission, it is anticipated that such data will cause an increase to costs for data recipients as firms, including retail brokerage firms, will need to make sure their infrastructure is capable of absorbing the exponential amounts of increased data, determine how to process the data, and reflect updated displays for the front end user experience(s) if determined necessary.¹⁷ Along with these updates, firms will need to determine what level of investment to make to avoid exacerbating any system integrity issues that may arise with the added data processing. While the Commission recognizes that not all firms will take all sub categories of Consolidated Market Data, it is unlikely that firms will have an option of whether to take all components of core data and therefore any data set not required by regulation should not be included within the core data definition.

TD Ameritrade currently offers depth of book products at a reasonable cost for those investors who find the data useful. Providing this data from separate feeds in specific circumstances for investors allows clients to choose what data beyond a national best bid and national best offer (“NBBO”) is important and useful to them and avoids overwhelming amounts of information. Thus, TD Ameritrade asserts that odd lot quotations, market depth, and auction imbalance information more accurately is incorporated into additional regulatory, administrative, or exchange-specific program data elements defined as such pursuant to the effective NMS plan or plans, or a sixth category titled ancillary data. Inclusion under the broader Consolidated Market Data definition would still require for the collection, aggregation, and dissemination of the data to make it available to self-aggregators and competing consolidators but would avoid future confusion about what is required of end users for regulatory purposes in the future. It would also facilitate clear price-setting requirements of the New Plan for consolidated data, meaning the cost defined by the Plan for core data would effectively be for core data, while separately requiring the New Plan to set costs for other data components which may not be needed by all end users.

Round Lot Size & the Importance of the Order Protection Rule

As part of the discussion of data elements, the Commission also is proposing to define the term “round lot,” a responsibility currently allocated to the exchanges. A round lot is a standard unit of trading that traditionally has reflected an order of meaningful size to market participants.¹⁸ The Proposal for changing the nearly universal 100 share round lot¹⁹ to a price-tiered model²⁰ appears to be

¹⁷ See *Proposal* at 16828, stating “Adding these components to core data could substantially increase the total message traffic in core data, and this increase in message traffic may be accompanied by costs to market participants to set up the infrastructure required to handle this new level of traffic.”

¹⁸ See *Proposal* at 16742.

¹⁹ See *Proposal* at 16738, stating “Round lot, though not defined in the Exchange Act or Regulation NMS, typically refers to orders or quotes for 100 shares or multiples thereof. Exchange rules typically define a round lot as 100 shares, but they also allow the exchange discretion to define it otherwise.”

²⁰ See *Proposal* at 16741, stating “Accordingly, under proposed Rule 600(b)(81) of Regulation NMS, a “round lot” would be defined as: (1) For any NMS stock for which the prior calendar month’s average closing price on the primary listing exchange was \$50.00 or less per share, an order for the purchase or sale of an NMS stock of 100 shares; (2) for any NMS stock for which the prior calendar month’s average closing price on the primary listing exchange was \$50.01 to \$100.00 per share, an order for the purchase or sale of an NMS stock of 20 shares; (3) for any NMS stock for which the prior calendar month’s average closing price

based on some misconceptions. Odd lot trade frequency, which is cited as the justification for the price-tiered model, is not a valid proxy for passive order interest.²¹ In reality, trade size is more often dictated by the liquidity-taker than the liquidity-provider and is often a result of algorithmic “pinging” behavior. TD Ameritrade performed a review in 2019 showing that the increase in odd lot trades was largely due to small liquidity-taking orders, not small passive orders.²² By comparing the odd lot rate (%) from the Commission’s MIDAS website with the average execution size of the Firm’s clients’ passive limit orders, and controlling for passive order size, the Firm found a strong correlation between the data sets.²³ At the same time, the Firm found no statistical increase in the frequency of its clients’ odd lot orders. Therefore, changing the round lot definition based on observed trade sizes (generally driven by the liquidity taker) as opposed to observed passive order sizes, for the purpose of increasing displayed liquidity, is not a consistent approach.

Importantly, although the Proposal has provided considerable data for analysis, it has presented limited data which would quantify the direct effect on *retail investors* of a change in the definition of a round lot. TD Ameritrade has attempted to quantify this effect for further consideration by assuming that both the NBBO spread²⁴ and NBBO quoted size²⁵ will decline proportionate to the decline in the round lot size.

Applying this logic to each quote observation allows the calculation of an expected Firm order-weighted average NBBO quoted spread, which can be compared against the currently observed NBBO

on the primary listing exchange was \$100.01 to \$500.00 per share, an order for the purchase or sale of an NMS stock of 10 shares; (4) for any NMS stock for which the prior calendar month’s average closing price on the primary listing exchange was \$500.01 to \$1,000.00 per share, an order for the purchase or sale of an NMS stock of 2 shares; and (5) for any NMS stock for which the prior calendar month’s average closing price on the primary listing exchange was \$1,000.01 or more per share, an order for the purchase or sale of an NMS stock of 1 share.”

²¹ See *Proposal* at 16742 - 43.

²² See *TD Ameritrade Odd Lots Letter* at 2, summarizing “This information leads TD Ameritrade to conclude that retail investors were not a predominant driver of the recent significant increase to odd lot trading. . . In fact, a Deutsche Bank study found similar results . . . the primary cause of the trajectory in odd lot trading over the past year appears to be due to liquidity takers.” See also “There’s more to odd lots than high-priced stocks . . .” Deutsche Bank Global Equities (June 25, 2019).

²³ See *Market Structure Analysis* on the SEC MIDAS Website at <https://www.sec.gov/marketstructure/index.html>.

²⁴ For example, if a \$60 stock with the current round lot size of 100 shares typically has a NBBO spread of \$0.05, then with a 20 share round lot size the NBBO spread will be \$0.01 ($0.05 \times (20/100)$). However, at times the NBBO spread of the same stock might be less than \$0.05—for example \$0.04. Since Rule 612 constrains the NBBO to no less than a penny for most stocks, even though the proportionate NBBO spread reduction under a 20 share round lot would lead to a \$0.008 spread ($0.04 \times (20/100)$), there would need to be an assumption of a penny NBBO spread. *Reg NMS* at 37503 states “The Sub-Penny Rule (adopted Rule 612 under Regulation NMS) prohibits market participants from displaying, ranking, or accepting quotations in NMS stocks that are priced in an increment of less than \$0.01, unless the price of the quotation is less than \$1.00.”

²⁵ This would require application of the same ‘quote-constrained’ logic mentioned in the previous footnote to limit the direction in quoted size when applicable.

quoted spread. Under this model, the proposal would lead to decreasing NBBO quoted size as a security moves up the round lot price tiers, culminating with a 97.9% reduction in the NBBO size in the \$1,000 tier.²⁶ Correspondingly, the percent of the Firm's client orders larger than the quoted size would progressively increase.²⁷ The progressive increase in the percent of TD Ameritrade client orders larger than the NBBO quoted size occurs because while the average TD Ameritrade notional order size increases with the price tier increase, the proposal has a regressive effect on the expected NBBO notional quoted size. Today the notional size at the NBBO matches the liquidity demands for each price tier, absorbing potential market impact. The Proposal repeatedly refers to ensuring that the round lot definition represents "orders of meaningful size".²⁸ However, as is shown from the statistics, the proposed round lot definition does not represent meaningful size *for retail investors*.

Furthermore, retail investors have come to rely on the NBBO as an accurate representation of available pricing. Thus, when placing an order, the average retail investor expects to be executed at the displayed price. The item may unknowingly be on sale and result in a better price for the client than was listed (*i.e.*, the firm obtained price improvement) but no client would accept being charged a higher price than listed on the item at the store. If retail investors who are accustomed to viewing the currently protected NBBO with meaningful size at 100 shares, begin viewing a fundamentally different NBBO based on the new round lot tiers which is no longer a protected quote but is required to be displayed at order entry per the Vendor Display Rule, they will at times be disappointed in the result, leading to frustration, confusion, and loss of trust in the public markets.

Complementary to the advantages of today's consistent quote standards, TD Ameritrade routes orders to market makers who offer frequent and meaningful price improvement. In fact, as displayed on the Firm's website over 96% of TD Ameritrade's marketable orders are price improved,²⁹ and by meaningful amounts. The benchmark for these statistics is the NBBO currently available through the SIP, and is consistent with what clients observe at order entry due to the Vendor Display Rule. Further, upon review of the Proposal's economic analysis on the potential effects of the new round lot definition, the frequency and amount of price improvement currently available to Firm clients far exceeds those in the Proposal's analysis.³⁰ Therefore, it is clear the proposed round lot definitions will not necessarily give retail investors an opportunity to receive better prices on their orders.

Not only does the Firm expect smaller round lot sizes to adversely impact retail investors' marketable orders, the Firm also anticipates it will reduce the likelihood that their passive orders will fill.

²⁶ NBBO quoted size would decline 2.3% in the \$50 tier, 22.8% in the \$100 tier, 97.6% in the \$500 tier, and 97.9% in the \$1,000 tier.

²⁷ The \$50 tier would increase by 15%; the \$100 tier would increase by 29%; the \$500 tier would increase by 69%; and the \$1,000 tier would increase by 73%.

²⁸ See *Proposal* at 16742 stating "A round lot is a standard unit of trading that traditionally has reflected an order of meaningful size to market participants."

²⁹ See TD Ameritrade Website at <https://www.tdameritrade.com/tools-and-platforms/order-execution.page>.

³⁰ See *Proposal* at 16824, including Table 4 – Instances of Price Improvement and Table 5 – Size of Price Improvement.

Regulation NMS Rule 612, otherwise known as the Sub-Penny Rule, was in part designed to address the practice of ‘stepping ahead’ of displayed limit orders by trivial amounts through the introduction of uniform quoting increments. As a stock price increases, the relative value of the minimum quote increment decreases, since for orders with the same notional value the quoted spread on high-priced securities needs to be crossed by fewer shares. Like the Sub-Penny Rule, the traditional 100 lot round lot size prevents the practice of stepping ahead of orders for an economically insignificant amount. The Commission stated in its proposal that it is not prescribing new rules for best-execution. In accordance with the Proposal, it is anticipated the NBBO will continue be used by firms for best-execution even in the absence of protected quote status, perhaps most notably because the Proposal does not change Regulation NMS Rule 605, which uses the NBBO as the benchmark. Therefore, the smaller size required to be on the NBBO will help low-latency professional traders step ahead of slower retail investors with less risk.³¹

Related to this concern is the Commission’s proposal to detach the round lot definition from the protected quote definition, while also permitting locked and crossed markets. Because the proposed round lot sizes would allow stepping ahead by economically insignificant amounts, locked and crossed markets may not simply be arbitrated away. At times liquidity-takers may perceive a sophisticated trader has locked or crossed the market for an economically insignificant amount and be reluctant to interact with them. This may lead to occasions of sustained locked and crossed markets, similar to what was observed prior to Reg. NMS Rule 610’s prohibition on locked and crossed markets.

The Firm is also a proponent of the Order Protection Rule (“OPR”) under Reg NMS in its current form, as it fosters retail investor confidence that their orders are on equal standing with professional traders.³² As the Commission stated in its 2005 proposal, the execution of trades at prices inferior to those offered by displayed and accessible limit orders is inconsistent with basic notions of fairness and orderliness, particularly for investors, both large and small, who post limit orders and see those orders routinely traded through.³³ The Firm cannot overstate its support for this rule, as it gives the retail investor not only the reality of, but also the confidence in equal treatment. The Division of Trading and Markets provided useful statistics in their April 2015 memorandum to the SEC Market Structure Advisory Committee showing the dramatic decrease in trade-throughs before Reg NMS’ OPR to those during the OPR regime.³⁴ Before Reg NMS’ OPR, the Firm fielded a significant number of customer

³¹ As an example, the Sub-Penny Rule prevents stepping ahead of an order to buy 100 shares at a \$10.00 with an order to buy 100 shares at \$10.001, an improvement to the quote of \$0.10 (the difference between $100 * \$10.001 = \$1,000.10$ and $100 * \$10.00 = \$1,000.00$), or a \$0.10 better fill for a liquidity-taking sell order. However, the Commission’s proposal would allow an even smaller improvement to the quote. If, for example, an order to buy 1 share at \$1,000.00 was improved by a 1 share order to buy at \$1,000.01, the improvement to the quote would only be \$0.01 (the difference between $1 * \$1,000.01 = \$1,000.01$ and $1 * \$1,000 = \$1,000.00$).

³² See *Reg NMS* at 37631 stating “A trading center shall establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent trade-throughs on that trading center of protected quotations in NMS stocks that do not fall within an exception set forth in paragraph (b) of this section [...]”

³³ See *Reg NMS* at 37502.

³⁴ See *Memo Re: Rule 611 of Regulation NMS* published by the SEC Division of Trading and Markets on April

complaints that orders were being traded through. Since the OPR, the number of client trade-through complaints has dropped significantly, even as trade volume has continued higher. The Firm's goal is to protect the interests of the retail investor, which includes reducing customer frustration and confusion and avoiding loss of trust in public markets. Similarly, the ultimate goal of the market system is to provide fairness and trust for all participants, in both perception and reality. Therefore, it is imperative that the round lot definition as applied to the NBBO and displayed to investors at the time of order entry due to the Vendor Display Rule continue to be tied to the definition of a protected quote.

As a recent example of how a change in quoting protocols can adversely impact investor experience, during the Tick Size Pilot, over 137,000 unique TD Ameritrade retail client accounts experienced over 418,000 rejected order attempts for the piloted securities. The resulting investor confusion led to many retail client inquiries and complaints. Therefore, TD Ameritrade asserts the current NBBO with meaningful size and easy to understand standards is important for promoting public confidence in the market. In the current Proposal for round lot tiers at five different increments, the Firm is also concerned for the potential confusion that may also be posed to investors trading options when contracts remain at 100 shares and the NBBO is quoted in lesser sizes.

Given the above, the Firm sees no quantifiable benefit for retail investors by updating the round lot definition to anything lower than 100 shares (or the round lot size as defined by the exchanges) and advocates for keeping the round lot size standards in effect today.

If the Commission, however, wishes to proceed with creating a regulatory-driven definition of a round lot, as well as updating the round lot definition from today's standard, then the Firm proposes taking an approach driven by expected retail investor impact. The Firm emphasizes that, if this change is made, the round lot definition as applied to the BBO/NBBO and displayed to investors absolutely must be tied to the definition of a protected quote. Certainly retail investor confidence dictates that this must be the case, or the legacy of improved retail investor confidence brought about by the OPR will be eroded.

As acknowledged by the Commission, each exchange includes rules specific to changing round-lot size from 100 shares if deemed warranted; these rules and the 100-share round lot size should remain intact for those stocks priced under \$500. Following a data-driven analysis the Firm proposes simply updating the round lot size and protected quote size to 50 shares on securities priced greater than \$500. This avoids the Proposal's effect of progressively increasing the rate of retail orders above the quoted size across the tiers, whereby 80% of retail orders would be larger than the quoted size at the lowest round lot tier. If up to 80% of orders larger than displayed quotes are receiving executions at various price levels worse than the quote per the Proposal, this will translate into lack of confidence in the markets. Although the Firm's recommendation would increase the percent of Firm retail orders larger than the NBBO size on securities greater than \$500, based on our analysis the resulting percentages would be in line with securities priced lower than \$500 as experienced today. The consistent level of NBBO liquidity relative to the order size in the Firm's two-tier recommendation

30, 2015 at <https://www.sec.gov/spotlight/emsac/memo-rule-611-regulation-nms.pdf>. In 2003, the trade-through rate for NYSE-listed stocks was 2.5% of trades and 7.2% of shares, compared to February 2014's 0.13% and 0.18%, respectively. Nasdaq-listed stocks showed similar reductions.

strikes a balance across order sizes and would accomplish the Commission's goal to provide meaningful size at the quote.

Aggregating Odd Lots into Round Lots

The Firm is supportive of standardizing the way exchanges treat odd lot orders by aggregating them to a common price. Since the Firm is opposed to creating separate definitions for round lots and protected quotes, and understands there are different ways in which the Commission proposes to aggregate odd lots for each purpose, the Firm is in favor of the method of aggregating quotes to disseminate the least aggressive price. This has been an effective way for exchanges to meaningfully improve transparency into odd lots orders without the negative consequences detailed above. As many exchanges today aggregate odd lots across different prices to represent a protected round lot at the least aggressive price, changing the aggregation methodology to using a single price likely would result in fewer retail protected quotes.

Self-Aggregators and Competing Consolidators ("CCs") Model

The Firm supports the use competitive forces, as historically these have improved markets in terms of both price and product. The lowering of cost is an overall win for the industry and clients. However, without a more detailed and specific understanding of how the Commission anticipates the proposed infrastructure will function, the Firm cannot make a definitive determination on the effectiveness of the proposal.

The Firm initially is concerned that the Proposal does not appear to establish a fundamentally 'level playing field' for all end users and, due to the internal-use only limitations imposed on self-aggregated data, creates a disparity amongst broker-dealers and other market participants that will cause a significant disadvantage to the retail investor. For the Firm to provide a more thorough analysis and responsive conclusion, the Firm needs additional clarification on the following topics:

Level Playing Field

In present-day infrastructure, there is only one source for the data with respect to each tape, meaning all end users have the same fundamental starting point for receipt of such data. This has had an impact on data dissemination, availability, reliability and accuracy.

Initially, the Firm was hopeful that self-aggregation would create a legitimate solution for the retail broker to develop an infrastructure tailored to the data needs of the retail investor, both connectivity- and cost-wise. This would allow brokerage firms to receive core data at the same time as a CC or other self-aggregation entity, and remove the aggregation, packaging and delivery fees that will be passed along from the CCs. However, due to the limitation of internal-use only for self-aggregated data, under the current Proposal registered broker dealers displaying core data to their customer (*e.g.*, externally) would be forced into either (1) investing significant time and resources in becoming a CC compliant with Regulation SCI requirements or (2) taking core data from CCs for display purposes.³⁵

³⁵ See Proposal at 16847 (estimating between \$320,000 and \$2.4 million initially, and between \$213,600 and \$1.6 million annually thereafter for the non-paperwork related direct compliance costs).

While competition *should* provide for a positive end result in terms of latency and cost with respect to the second option, there is no present guarantee that such will occur. Furthermore, in the CC model, there is the potential that those willing and able to pay more for faster speeds may ‘get to market’ faster than those limited in ways other industry participants are not.

To remedy the above potential disadvantages, a third option should be added to allow registered broker dealers to use self-aggregated consolidated market data for display to their own brokerage clients, without further sale or redistribution to unaffiliated third parties. Such instances should not be subject to the proposed CC requirements, as brokerage firms have other strict and relevant regulatory guidelines for participating in the markets,³⁶ unlike third party non-SRO data vendors who are likely to enter the competing consolidator marketplace. The Proposal elaborates on the perceived benefits to Regulation SCI compliance, however such benefits are similarly inherent in the registered broker-dealer regulatory regime for continuity of operations and display of the data. Reviews over these requirements are already performed through the various internal and external exams of compliance.³⁷

Impact to Industry Confidence in Quotes

In the present-day structure, SIPs provide a ‘gold copy’ standard of the NBBO, which can be used for comparison when meeting the regulatory requirements of best execution and the Vendor Display Rule. Under the new model, if a gold copy single source is not present, and an explicit method for determining the accuracy of a calculated NBBO is not clearly defined, how will the industry maintain confidence in the quotes disseminated? The industry may have as many NBBO quotes as there are CCs and self-aggregators. The Proposal notes that market participants may already observe ‘multiple NBBOs’,³⁸ however the differences discussed therein are resulting from speed of delivery between SIP and proprietary feeds, and not with respect to the calculation of an NBBO. Furthermore, even if proprietary feeds disseminate a different quote than the NBBO, such quote has never been permitted for purposes of use in the Vendor Display Rule, meaning the retail investor has not

³⁶ See *FINRA Rule 4370* (establishing requirements for designing business continuity plans which require data backup and recovery, mission critical systems, and alternate location requirements, among others). See also *FINRA Rule 4380* (requiring mandatory participation in FINRA BC/DR Testing under Regulation SCI if determined necessary by FINRA).

³⁷ See *Proposal* at 16843, stating “expanding Regulation SCI to include competing consolidators would help ensure that competing consolidators’ systems involved in the collection, consolidation, and dissemination of proposed consolidated market data are able to maintain their operational capability, including the ability to maintain effective operations, minimize or eliminate the effect of performance degradations, and have sufficient backup and recovery capabilities. The Commission preliminarily believes that competing consolidators being subject to the Regulation SCI requirements would lead to, among other things, fewer interruptions in the data delivery process and, thus, may result in better trading decisions.”

³⁸ See *Proposal* at 16815 stating “Although exclusive SIPs are tasked with calculating and disseminating the NBBO, at each particular instant the NBBO being used by various market participants could be different due to market participants using proprietary data feeds. In particular, because of geographic and aggregation latencies, market participants that aggregate proprietary data feeds internally or that purchase proprietary data feeds from market data aggregators are likely to have NBBO quotes different from each other and different from the NBBO quote distributed by the exclusive SIPs.”

previously experienced a multiple NBBO environment. While the Commission is proposing the inclusion of timestamps as an important measure in ensuring the accurate sequencing of data,³⁹ multiple quotes with the same timestamp may cause confusion in order of processing if not further addressed with more specificity. Similarly, will the competition amongst consolidators to meet specific needs, such as speed, mean the products may give up quality, *e.g.*, accuracy of the data provided? If regulators determine that the NBBO is calculated differently by CCs, what relief will be granted to firms/retail investors using different CCs in reviews of execution quality on an order by order basis? Furthermore, if CCs are not using the same NBBO, there may be an inconsistency in their reporting for Rule 605 preventing apples to apples data available for comparison. If a CC is determined to be non-compliant in issuing accurate NBBOs, will a Firm receiving such feeds also be held accountable for any impacts this may cause to execution quality reviews and Vendor Display Rule compliance? Expectations for these specific situations should be defined and understood industry wide prior to any such implementation, as it is atypical for a third-party data provider to be held accountable for compliance with best execution and/or Vendor Display Rule requirements.

Availability & Reliability

Another open question is whether firms will be expected to take feeds from multiple CCs for redundancy purposes, or whether the required Regulation SCI compliance will offer sufficient protections against continuity events. Today, when there are issues with the SIP feed, typically most if not all recipients are impacted across the industry creating equal opportunities/setbacks for all those participating. However, if both the production feed and the disaster recovery site from a single CC are impacted by an event while the participant feeds to consolidators remain intact, what will the expectation be for those firms individually impacted when their end clients are unable to participate in a market that remains open? If additional redundancies are expected, firms will need available cost-conscious options (both in feed pricing and infrastructure build requirements) to ensure continuity of processing requirements are met through use of another CC. Given the overall infrastructure costs already anticipated with the Proposal, the effort should seek to limit financial, operational and administrative burdens wherever possible.

The Proposal includes a requirement that participants will conduct an annual review of CCs regarding their performance, including speed, reliability and cost, and provide a report to the Commission.⁴⁰ TD Ameritrade believes it is the Proposal's intent to ensure these reviews will be performed for all CCs, on standard, quantifiable requirements/metrics. While confirming the CC model is operating as intended at regular intervals based on publicly disclosed information may be a significant improvement from the current model, where information may not be publicly available for firms to draw their own conclusions, the Proposal does not indicate whether the results of participant assessments will be made publicly available to firms and what, if any, actions broker-dealers will be required to make in response to such assessments. Will there be specific remediation timelines

³⁹ See *Proposal* at 16792 stating: "Further, the Commission preliminarily believes that the application of timestamps will be an important part of market participants' ability to measure latency and to seek to ensure accurate sequencing of data in the new national market system, and therefore the application of timestamps should be consistent and reliable."

⁴⁰ See *Proposal* at 16793.

imposed on data vendors? Will recipient firms be expected to take independent action within a specific timeline? Will recipient firms be required to make certain disclosures regarding their selection of data vendors? Furthermore, would a firm be open to litigation from its customers if the model, speed, and/or selection of a CC isn't 'top of the line'?

Cost

Lastly, relevant and specific information about the consolidated market data cost model was not provided in the Proposal. While the Commission contemplates that costs of data should be tied to costs relevant in producing such data⁴¹, and competition *should* drive price down, the Firm has some concerns. The Proposal contemplates several areas for cost consideration:

1. Initial investments to infrastructure by participants, self-aggregators/competing consolidators, and firms;
2. Cost of data provided by participants set by the New Data Plan; and
3. Costs for delivery of data by Competing Consolidators.

The Firm anticipates a significant amount of time and investment will be needed to comply with any new requirements. These costs are likely to include those necessary to perform design upgrades and/or expansions to ensure the infrastructure is appropriate to meet the needs of any new connectivity requirements. The Commission acknowledges these costs could be large and cause barriers to entry.⁴² While the Commission requests any insight into the specifics for these costs, Firm impact largely will be dependent on the solution(s) available to them once the new infrastructure is finalized. However, impacts as a result of these changes will not be limited to those associated with data feed and connectivity charges, but also to the time and investment necessary for analyzing any front-end systems displaying to end users, determining/implementing any display changes necessary based on changes to feed structure, content, etc., and investing in training for brokers and clients to help them understand the changes.

Next, the participants will be required to add data fields to the consolidated market data feeds which have historically been considered proprietary information. TD Ameritrade anticipates this will drive an increase in underlying fees for consolidated market data given the new components required. The Commission has established such fees charged by the Participants for NMS data will be governed

⁴¹ See *Proposal* at 16843, stating "Market participants may achieve this if competing consolidators offer tiered levels of service with different data contents and different service fees based on the needs of specific types of investors similar to what one SIP proposed recently."

⁴² See *Proposal* at 16837, noting "However, the Commission preliminarily believes that each of these firms and broker-dealers would incur costs to expand their bandwidth and purchase hardware to receive information that is not currently disseminated in the exchange proprietary market data feeds, such as the proposed regulatory data and administrative data. Further, based on the proposed rule, current market data aggregators and broker-dealers that currently aggregate market data for internal uses would incur new compliance costs to satisfy the two regulatory compliance requirements to become competing consolidators. As discussed below, these costs could be large and therefore may affect entry and the benefits of the decentralized consolidation model."

under a New Plan,⁴³ and therefore the Firm anticipates any data fee structures under the new model should be thoroughly reviewed to ensure they accommodate all Participants. However, as the proposal for the New Plan is currently written, there is no baseline for the evaluation of fees beyond the concept of “fair and reasonable,” to which the Firm has raised concerns in the past.⁴⁴ Furthermore, with the added level of information now proposed for inclusion to consolidated market data, no further requirements have been established mandating Participants to set a la carte prices for discrete data elements. Theoretically competition should drive products and prices to meet consumer needs. However, in practice, CCs would require individualized cost information from the New Data Plan in order to be able to package and distribute data products for differing audiences with varying needs.

The Proposal is introducing new, third party competing consolidator fees for regulatory required data which have not historically been charged separate from the participants’ cost of providing consolidated market data. Costs from these vendors for their ancillary products were typically governed via individually negotiated contracts, which had regular reviews and included annual cost increases. Because such data products were supplementary to the SIP feeds and not a required subscription for all firms, fees have remained relatively competitive. However, under the new model, these feeds would be required for market participation. Any additional cost charged for the consolidator’s aggregation, packaging and delivery services is likely to be a net-new cost unless an overall review of total cost (participant + consolidators) is performed and determined to be less than present day costs. The retail investor could be charged exponentially more in the future structure than in the present structure. The Firm would expect to see further clarification for the anticipated governance expectations over costs before agreeing that such a model would be truly beneficial for the retail investor.

Effects on NMS Plan

The Commission notes that the Consolidated Audit Trail NMS Plan (“CAT NMS Plan”) is required to take ‘SIP Data’⁴⁵ and asks for comment on whether the selection of the CAT’s competing consolidator may have a competitive impact on other CCs, and whether the CAT should be required to take market data from more than one, or all, CCs. The Proposal does not take a position on whether one competing consolidator would be sufficient, and the Firm is concerned about the reliability of the data output by CCs in general and the concerns raised above with respect to a ‘gold copy’ of the data. If the CAT was to take feeds from all CCs, and identified conflicting data points across consolidators, how would such conflicts be handled and communicated to the industry and what steps would industry participants be expected to take with respect to such information? While the CAT may be a useful solution in reconciling such information, lack of mandatory requirements to do so and defined procedures for such reconciliation will lead to confusion across the industry.

⁴³ See *New Data Plan*, Release 34-88827 (May 6, 2020), 85 FR 28702 (May 13, 2020) (“New Data Plan Order”). See generally the New Data Plan requirements.

⁴⁴ See *TD Ameritrade Comment Letter to the Proposed Order for a New NMS Plan Regarding Consolidated Equity Market Data* at <https://www.sec.gov/comments/4-757/4757-6859895-210562.pdf>, submitted by Joseph Kinahan on February 24, 2020. (“*TD Ameritrade Proposed New NMS Plan Letter*”) at 6, regarding addressing the definition of “fair and reasonable.”

⁴⁵ See *Proposal* at 16794.

Transition Period

To avoid unnecessary delays, TD Ameritrade believes the Commission will need to establish definitive checkpoints for all key implementation requirements for any such changes enacted, to ensure implementations are not unnecessarily delayed. For example, key deadlines should include the establishment of a competing consolidator application and review process, compliance deadlines for receiving competing consolidator approval, issuance of technical specifications for key initial products available to industry participants for review, etc.

* * * *

Conclusion

TD Ameritrade supports a strong and healthy National Market System. TD Ameritrade appreciates the opportunity to comment on the Commission's Proposal for expanding the content of NMS information and amending the method by which NMS information is collected, calculated, and disseminated. The Firm strongly supports the reformation of market data structure, including the need for defining specific market data elements and implementing a common odd-lot aggregation logic for all exchanges for the purpose of displaying meaningful size.

The Firm, however, continues to have concerns regarding certain aspects of the Proposal. The redefinition of core data expands the dataset beyond what retail investors need. Furthermore, given the Firm's desire to protect the retail investors' confidence in the markets, the Firm strongly recommends that round lot size continue to be consistent across the BBO, NBBO and protected quote definitions. No change to round lot size should be made. If such changes are deemed necessary by the Commission, however, the Firm believes a simple change to round lot and protected quote size of 50 shares for securities priced over \$500 would provide meaningful size at the quote for the retail investor.

TD Ameritrade strongly supports competition and has hopes for an improved collection, processing and dissemination model. The Firm, however, has serious concerns about the proposed competing consolidator model as sufficient information has not been provided to properly assess whether a competing consolidator model is appropriate under the requirements of the Exchange Act. Furthermore, the Firm supports the addition of a third alternative for registered broker-dealers, allowing them to self-aggregate consolidated market data and disseminate it to their own brokerage clients, without further sale or redistribution to unaffiliated third parties.

TD Ameritrade greatly appreciates the Commission's consideration of the above comments and concerns. Please feel free to contact me, at (866) 839-1100, with any questions regarding our comments.

Respectfully Submitted,

A handwritten signature in black ink, appearing to be 'J. Kinahan', with a long horizontal stroke extending to the right.

Joseph Kinahan
Managing Director, Client Advocacy and Market Structure