May 26, 2020

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

Re: Market Data Infrastructure (File No. S7-03-20)

Dear Ms. Countryman:

The Investment Company Institute\(^1\) strongly supports the Securities and Exchange Commission’s proposed amendments to Regulation NMS.\(^2\) The Proposed Rule would enhance the content of NMS market data and allow entities other than the exclusive securities information processors (“SIPs”) to disseminate that data to market participants.\(^3\) In conjunction with the recent Commission order to reform NMS equity data plan governance,\(^4\) the Proposed Rule strengthens the NMS framework by improving the utility of NMS market data for registered investment companies (“funds”).

Registered investment companies managed $22.8 trillion in total net assets as of March 2020, largely on behalf of more than 100 million retail investors.\(^5\) The share of household assets in funds stands at 23%

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\(^1\) The Investment Company Institute (ICI) is the leading association representing regulated funds globally, including mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI’s members manage total assets of US$22.1 trillion in the United States, serving more than 100 million US shareholders, and US$7.0 trillion in assets in other jurisdictions. ICI carries out its international work through ICI Global, with offices in London, Hong Kong, and Washington, DC.


\(^3\) We refer to “SIP data” and “consolidated feed” interchangeably in this letter.


\(^5\) The $22.8 trillion figure represents total net assets of mutual funds (including money market funds) and exchange-traded funds (ETFs) as of March 2020 as reported in ICI’s recent March 2020 statistical releases and total net assets of closed-end funds and unit investment trusts as of December 2019. See ICI, 2020 Investment Company Fact Book 31 (60th ed. 2020),
today, growing from 18% in 2001. Today, the majority of fund net assets are in equity funds. Index-based funds have grown to 39% of industry assets in long-term mutual funds and ETFs. Over the past two decades, not only have fund assets increased, but so have the variety of investment objectives and strategies that funds pursue to promote the needs of investors who are seeking ways to save for their most important financial goals.

Funds have a significant interest in the Proposed Rule both as contributors to, and consumers of, market data. Many funds rely on SIP data to monitor market conditions, inform investment decisions, conduct transaction cost analysis, and fulfill regulatory obligations. Funds, however, technically trade through broker-dealers that use market data to route orders on their behalf. To optimize order routing and obtain favorable trading results for funds in today’s marketplace, broker-dealers cannot rely on SIP data alone for trading. In fact, some funds typically require their broker-dealers to subscribe to all available proprietary feeds as a prerequisite to engaging their services, which cost is passed through to the fund and its shareholders.

**Background and Executive Summary**

The Commission first established the NMS framework for market data in the late 1970s to meet the statutory goal of ensuring access to market data for investors that is prompt, accurate, reliable, and fair. This system allows exchange-operated, exclusive SIPS to disseminate NMS market data through the consolidated feed. The SEC preserved this framework when it adopted Regulation NMS in 2005.

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7 *Id.* at 38.

8 The Vendor Display Rule requires broker-dealers to show funds a consolidated display of market data. See Exchange Act Rule 603(c). Funds also may consume SIP data directly through third-party data platforms.

9 We use the term “funds” even if technically a fund’s broker-dealer is using the SIP or a proprietary feed as an agent on behalf of the fund.

10 Securities Exchange Act Section 11A(c)(1)(B) authorizes the SEC to prescribe rules that “assure the prompt, accurate, reliable, and fair collection, processing, distribution, and publication of information with respect to quotations for and transactions in such securities and the fairness and usefulness of the form and content of such information.” 15 U.S.C. 78k-1(c)(1)(B).
Since that time equity market structure has evolved significantly from a slow and manual trading environment to electronic markets with low-latency, algorithmic trading across multiple market centers. Trading activity now occurs across thirteen exchanges (with two more exchanges forthcoming) and a host of other off-exchange venues, therefore generating many different market data feeds. Over that same time period, the non-profit, mutualized exchanges transformed into for-profit companies that used this market fragmentation to create their own feeds, which has resulted in a two-tiered system for market data. Many market participants, including broker-dealers trading on behalf of funds, believe that it is necessary to subscribe to these feeds to ensure that they have robust data for competitive trading purposes.

The consolidated feed has long been an important source of equity market data for all investors, but its relative usefulness has diminished over time. Despite the exchanges charging higher fees for access, the content and delivery speed of the consolidated feed lags behind that of the proprietary feeds offered by the exchanges. Despite these shortcomings, the consolidated feed continues to provide critical regulatory information such as notifications about intraday trading limits. Funds and other investors consequently must continue to use this inferior, yet expensive, product.

The consolidated feed has become subordinate to the exchanges’ competing proprietary feeds. The Commission permitted proprietary feeds under Regulation NMS to promote the “wide availability of market data” beyond the SIPS, but the exchanges used this flexibility, and advances in trading technology, to develop superior feeds that provide more granular market data delivered with lower latencies. Because of these advantages, the exchanges are able to charge even more for access to each of these proprietary feeds than they do for access to SIP data. In fact, the Commission estimates that the


12 See Regulation NMS; Final Rule, Securities Exchange Act Release No. 51808, 70 Fed. Reg. 34796, 37503 (June 29, 2005) (“Regulation NMS Adopting Release”). Under Regulation NMS, the Commission further contemplated that limiting the scope of the Vendor Display Rule to the NBBO at that time would “allow market forces, rather than regulatory requirements, to determine what, if any, additional quotations outside the NBBO are displayed to investors.” The Commission further noted that investors who needed additional data, e.g., comprehensive depth of book information, would be able to obtain such data independently. Id. at 37567.

exchanges derived nearly half of their 2018 market data products revenue—$269 million of $596 million—from the sale of proprietary data feeds.\textsuperscript{14}

Despite their significant cost, funds seek access to these feeds to obtain the full scope of market activity and optimize trading on behalf of shareholders.

The Proposed Rule would go a long way towards mitigating the exchanges’ conflict for the benefit of investors by creating a more balanced and equitable data marketplace that promotes price transparency among a broader range of market participants and potentially lowers market data costs. Improving the content and delivery of the consolidated feed is a welcome step toward making it more likely that market participants, including funds, may place greater, or even sole, reliance on the feed for trading. Therefore, finalizing the rule would be consistent with the statutory goal of ensuring that investors have access to market data that is prompt, accurate, reliable and fair.

We summarize immediately below our more specific comments on the Proposed Rule.

Exchanges must provide the information that comprises so-called “core data” for consolidation and dissemination as part of SIP data. We support the Commission expanding the scope of core data, which will benefit funds and their shareholders, as explained further below.

- **Round lots** – Adding odd-lot quote information through smaller round lot quote sizes will improve price transparency and enhance transaction cost analysis, especially for higher-priced stocks. To further the NMS objectives, however, we recommend that the Commission provide order protection to additional round lot quote sizes and recalibrate certain price tiers.

- **Depth of book data** – The addition of depth of book information would provide an essential, more granular view of market activity beyond top of book liquidity.

- **Auction information** – The addition of auction information would provide transparency into a significant portion of current trading activity.

We strongly support the Commission taking steps to facilitate the creation of a competitive market for disseminating consolidated market data. Doing so should promote faster access to market data at more reasonable costs.

We recommend that the Commission apply the same standard for reviewing NMS core data fees—“reasonable relation to cost”—when it reviews the fees that the exchanges will jointly charge competing consolidators and self-aggregators for underlying data. The Commission could further facilitate its

\textsuperscript{14} See Proposed Rule at 16817.
ability to do so by adopting the proposed rescission of the effective-upon-filing exception for NMS plan fee amendments (“Effective Upon-Filing Proposed Rule”).

Additions to Core Data

We support the Commission enhancing the elements of “core data” to include (i) odd-lot quotes represented as smaller “round lot” quote sizes; (ii) depth of book information; and (iii) auction information. Doing so would further the Exchange Act’s NMS objective of providing market data that is prompt, accurate, reliable, and fair.

As a technical matter, the Proposed Rule would require exchanges to provide the information that comprises “core data” for consolidation and dissemination to the public as part of “consolidated market data.” The enhancements would have the effect of making more market information available to a greater number of market participants. Doing so will promote fair competition and enhance both price transparency and price discovery. This change will inure to the benefit of funds and their shareholders.

We also support the Commission enhancing what constitutes “core data” through rulemaking. NMS governance reform will mitigate the exchanges’ conflicts of interest, but a Commission rule defining


16 Core data currently is limited to (i) the price, size, and exchange of the last transaction; (ii) each exchange’s current highest bid and lowest offer (BBO) and the number of shares available at those prices; and (iii) the national best bid and national best offer (NBBO).

17 See Proposed Rule 600(b)(20). The Proposed Rule sets forth a definition of “core data” that comprises a part of the proposed definition of “consolidated market data,” which also would include (i) regulatory data; (ii) administrative data; (iii) exchange-specific program data; and (iv) additional data elements defined pursuant to the effective NMS plans. See proposed Rule 600(b)(19).

18 We also refer to the “consolidated feed” as a consolidated market data product that a competing consolidator or self-aggregator would create pursuant to the Proposed Rule.

19 The other possible option would be for the exchanges to do so through the Equity Data Plans. For example, the SIP Operating Committees for the Nasdaq Unlisted Trading Privileges (UTP) Plan and the Consolidated Quotation (CQ) Plan are considering a proposal to disseminate certain consolidated odd lot quote data as ancillary information on their consolidated data feeds. CQ Plan & UTP Plan, Odd Lots Proposal, available at https://www.craplan.com/publicdocs/CTA_Odd_Lots_Proposal.pdf.
core data provides greater certainty to achieving this significant improvement.20 Further, the Commission can fairly and adequately balance all market participants’ views during the rulemaking process.

We provide specific views for each of the proposed enhancements to core data below, as well as our related recommendations regarding the application of the Order Protection Rule.

Definition of “Round Lot”

We support establishing round lot sizes below 100 shares in each exchange’s highest bid and lowest offer (“BBO”), the national best bid and national best offer (“NBBO”), and proposed depth of book information. Given the prevalence of odd-lot trading, certain small orders reflect “meaningful order size[s]” and would improve the usefulness of the consolidated feed.

The Proposed Rule would adopt a tiered, price-based definition of “round lot” that incorporates smaller-sized orders of higher-priced stocks, i.e., less than 100 shares.21 Based on the tiers proposed, the additional core data would include odd-lot orders with notional values of $1,000 or more.

Increases in share prices for frequently-traded NMS stocks have led to more orders below 100 shares, with recent estimates showing that at least 40% of daily trading activity occurs in odd-lot sizes.22 Therefore, more investors are likely to submit smaller order sizes for higher-priced NMS stocks and would benefit from a more robust consolidated feed that displays smaller round lot quotes. And, smaller-sized orders also often are quoted at better prices than the NBBO and represent price improvement.

Further, smaller round lot quote data would improve funds’ ability to conduct transaction cost analysis. Rule 605 of Regulation NMS requires market centers to disclose statistics on a monthly basis detailing

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20 We note that the exchanges, which jointly administer the SIPs, have provided differing recommendations on the scope of additional information that should be added to the consolidated feed. See infra note 28. See also Written Submission of Thomas Wittman, Executive Vice President, Head of Global Trading and Market Services and CEO, Nasdaq Stock Exchange 14-15 (Oct. 25, 2018), available at https://www.sec.gov/comments/4-729/4729-456278-4-176135.pdf (opposing any addition to the existing SIP data as “profound government intervention” that would harm competitive choice).

21 Aggregated odd-lot quotes across multiple prices that are equal to or greater than a round lot also would be disseminated at the least aggressive price of those quotes. In addition to this odd-lot quote data, odd-lot transaction data, which the exclusive SIPs already disseminate, would be within the scope of core data. See Proposed Rule 600(b)(20).

order execution quality. Funds use this data to analyze broker-dealer execution quality and determine best execution. Given that smaller round lot sizes would help to generate a more accurate NBBO, this data would enhance disclosure quality in Rule 605 reports and, therefore, enable better transaction analysis and may drive improved results for fund shareholders.

However, we recommend that the Commission apply order protection to round lot quotes of less than 100 shares. As proposed, the Order Protection Rule would apply only to displayed, automated round lot quotes of at least 100 shares. Therefore, a greater number of round lot quotes shown at the NBBO would be unprotected.

The proposal to maintain order protection only at the 100-share level would be unfair. The Order Protection Rule, in conjunction with the NBBO, promotes fair trading and best execution for all market participants. The rule seeks to limit the execution of trades on one venue at inferior prices to displayed quotes at another venue. Some investors still experience trade-throughs of better-priced, unprotected odd-lot orders despite best execution requirements.

The proposed approach also could create confusion. Displaying both protected and unprotected quotes in the consolidated feed would increase the complexity of core data for some investors and lead to a potentially irrelevant NBBO. Given the price-based approach to round lot sizes, whether a stock is protected could change based on share price movements. Market participants likely would need to devote resources to adapt to such changes, e.g., coding revisions, which may be a challenge for smaller market participants.

Therefore, in our view, it would be more appropriate for the SEC to first adopt the new round lot sizes and provide order protection. However, the Order Protection Rule’s effects on equity market structure since Regulation NMS was adopted in 2005 is a very complex issue and should be addressed separately. ICI and its members would welcome the opportunity to provide additional input to assist that effort.

Prior to applying order protection to all round lot sizes, we recommend that the Commission reexamine the proposed sizes and corresponding price tiers to avoid protecting quotes with a de minimis

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23 These statistics include data on price improvement, including the percentage of orders executed at or better than the NBBO, as well as outside the NBBO; and average effective spreads, which demonstrates how well an order was executed against the NBBO. See Exchange Act Rule 605.

24 Order protection would only apply to smaller quotes aggregated at a single price that meet that threshold. See Proposed Rule 600(b)(69) (proposed amendment to definition of “protected bid or protected offer” under Rule 611 of Regulation NMS). Based on the proposed amendment to the definition of “protected bid or protected offer,” the protections provided to investors under Rule 610 against locked and crossed quotes also would not apply to the proposed additional round lot sizes. We express similar concern about this approach, given that Rule 610 is intended to promote fair and orderly trading.

notional value. Based on initial member feedback, protecting one-share round lot quotes with a notional value of $1,000.01 across all exchanges would increase trading complexity for funds without commensurate benefit to the market. Adjusting the notional value threshold—for example, by increasing minimum stock price for a one-share round lot to an amount higher than $1,000.01—would mitigate this additional complexity and still provide more investors with useful information on orders of meaningful size.

We also request that the Commission clarify whether the proposed definition of “round lot,” by affecting the NBBO, would affect certain disclosure requirements for ETFs under Rule 6c-11. Rule 6c-11 requires an ETF to disclose, among other information, the ETF’s market price from the prior business day and median bid-ask spread, both of which are determined based on its NBBO. Providing the requested clarification would be consistent with the Proposed Rule clarifying how the “round lot” definition, and its effect on the NBBO, would affect execution quality statistics under Rule 605.

**Depth of Book Information**

We strongly support adding depth of book quote information to core data. Doing so would reveal broadly if any significant quoting interest exists below the best bids and above the best offers. It would assist greatly funds’ ability to form an accurate view of overall market activity. We believe that the scope should consist of at least five price levels, based on the typical trading needs of funds.

The Proposed Rule would add depth of book information that includes aggregated quotes at each price between the best bid (and best offer) and the protected bid (and protected offer) (if different), as well as all quote sizes, aggregated at the next five price levels above the protected offer and below the protected bid.

Depth of book data is critical information that funds rely on for trading decisions, including determining how to apportion and route larger-sized orders for execution. Adding this information to

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26 “Market price” is defined as either the official closing price of an ETF share; or if it more accurately reflects the market value of an ETF share at the time as of which the ETF calculates current NAV per share, the price that is the midpoint of the NBBO. See Investment Company Act Rule 6e-11(a)(1). An ETF’s median bid-ask spread is expressed as a percentage rounded to the nearest hundredth, computed by (i) identifying the exchange-traded fund’s national best bid and national best offer as of the end of each 10 second interval during each trading day of the last 30 calendar days; (ii) dividing the difference between each such bid and offer by the midpoint of the national best bid and national best offer; and (iii) identifying the median of those values. See Investment Company Act Rule 6e-11(c)(1)(v).

27 The proposed smaller round lot sizes would determine the minimum size requirement for depth price levels. Further, odd-lot quotes at different prices that aggregate into a round lot size or higher would be reported at the least aggressive price for depth of book purposes. See Proposed Rule 600(b)(20).
core data also would further augment the ability of funds to assess execution quality. Therefore, adding depth of book would enhance transaction cost analysis.

The top of book information that the SIPS provide is insufficient and the availability of depth of book data via proprietary feeds has perpetuated reliance on those competing products. Some exchanges have volunteered to enhance the consolidated feed with additional market data, but have yet to offer a sufficient amount of depth of book information in their recommendations. This omission reflects the recognition that depth of book information has significant value as a proprietary data product, such that many investors are willing to pay additional fees to access it.

**Auction Information**

We strongly support the proposed addition of auction information to core data. The Proposed Rule would require each self-regulatory organization (SRO) to provide information related to their respective auctions to the consolidated feed, including auction order imbalances. Making full auction information available is important given the growth of trading via auctions.

Opening and closing auctions have increased in importance to equities trading and represent significant trading volume for funds. In particular, mutual funds and ETFs that utilize passive index-tracking strategies actively participate in closing auctions. These auctions set closing prices that are used to calculate net asset values and/or serve as a reference price in an index calculation. Funds also use auctions to minimize price sensitivity in executing large-sized trades. Auction information, which includes imbalance levels between buy and sell orders, allows funds to decide whether to participate, and if so, to determine direction, order size and timing.

Including auction information in the consolidated feed would enhance transparency into market activity. Doing so also would eliminate proprietary data costs as a barrier to auction trading and

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29 “Auction information” would be defined to include all information that an exchange specifies by rules or an NMS plan (e.g., a LULD plan) leading up to, and during, an auction. Information would include opening, reopening, and closing auctions that is disseminated during the time periods and at the time intervals provided in those rules and plans. See Proposed Rule 600(b)(5).
encourage a broader range of market participants to submit trading interest. Maximizing auction participation would allow trading interest to concentrate, thereby enhancing market liquidity and price discovery.

**Competing Consolidators**

We strongly support allowing greater competition in the dissemination of consolidated market data. For the additions to core data to have a positive impact in today’s high-speed trading landscape, investors also must receive that data at a low latency that is similar to proprietary data speeds. Therefore, we agree with the Commission that enhancing market data and promoting competition complement one another and strongly believe in the need for both reforms.

The Proposed Rule would eliminate the exclusive SIP model for collecting, consolidating and disseminating NMS market data. Instead, the rule would allow competing consolidators to collect, calculate, and disseminate consolidated market data, which includes core data, to subscribers. The rule also would allow self-aggregators to collect and formulate consolidated market data for their own use. Further, the Proposed Rule would require each SRO to provide the underlying data needed to form consolidated market data in the same form, manner, and access methods that are used for its proprietary data, including the same latency-neutralized manner.

Eliminating SIP exclusivity would allow others an opportunity to create one or more superior consolidated feeds, which would reduce geographic latency. Exchange data, for example, would no longer be consolidated at only two points, i.e., the CTA/CQ SIP and the Nasdaq UTP SIP centers, and subscribers in different locations would not be limited in where they obtain consolidated data. Second, competition also would reduce transmission latency—a competing consolidator could collect exchange data with the fastest means available, e.g., wireless connections, and disseminate consolidated market data to subscribers through faster means than current exclusive SIP offerings.

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30 We have long expressed concerns about the role of latency in creating a two-tiered system for market data. See, e.g., Letter from Karrie McMillan, General Counsel, ICI, to Elizabeth M. Murphy, Secretary, Commission, 25 (Apr. 21, 2010), available at [https://www.sec.gov/comments/s7-02-10/s70210-138.pdf](https://www.sec.gov/comments/s7-02-10/s70210-138.pdf) (discussing the difference in latency between the consolidated feed and proprietary feeds).

31 Therefore, all connectivity options would need to be available regardless of the scope of data purchased, i.e., consolidated market data or proprietary data.

32 For example, a competing consolidator could instead obtain exchange data directly from the exchanges, consolidate that data at a single location, and allow subscribers to receive that data from the same location.
Additional Essential NMS Reforms

We underscore that adopting all of the Commission’s three recent NMS initiatives, including the Proposed Rule and the Effective-Upon-Filing Proposed Rule, would further the Commission’s longstanding objectives of promoting investor fairness and minimizing transaction costs for long-term investors. In that respect, we applaud the Commission for unanimously adopting the NMS Plan Governance Final Order. The final order represents an important first step toward allowing for more competition and diversity in the creation and distribution of consolidated market data.

Further adoption of the Proposed Rule and Effective Upon-Filing Proposed Rule is necessary to effectively balance the degree of control that the exchanges will continue to have over market data. Even under a decentralized model, the exchanges still would set fees jointly (in an NMS plan) for the information needed to produce consolidated market data. Similar to the status quo, they also would collect these fees and allocate the revenues among the participating exchanges. Accordingly, the exchanges would continue to have pricing power over a fundamental component of the NMS.

One of the Commission’s primary goals with respect to market data is to ensure reasonable fees that promote its wide public availability. Given that market data fees comprise a larger-than-ever share of overall transaction costs, we urge the Commission to focus on ensuring that any such new fees are appropriate in accordance with the Exchange Act. Unreasonable fees would harm the viability of any competing consolidator and self-aggregator and, therefore, the ability to obtain consolidated market data at a reasonable cost. The Commission rescinding the effective-upon-filing exception would augment the ability of market participants to weigh in and the Commission’s ability to oversee fees.

33 Regulation NMS Adopting Release at 37499.

34 The reforms to NMS equity data plan governance, which grants operating committee voting rights to non-SRO participants, will help mitigate the exchanges’ conflicts of interest in administering such a plan. However, the exchanges will retain the authority to set fees under the augmented majority voting requirement. See NMS Plan Governance Final Order at 28722 n.287 (stating the that an augmented majority vote would allow a measure to pass with only SRO operating committee members voting affirmatively.).

35 Regulation NMS Adopting Release at 37560.

36 To help enhance oversight of NMS market data fees, we also suggest the Commission consider affirming and applying certain aspects of the staff guidance on SRO fees filings to NMS fee filings. That guidance provides SROs with additional detail on how to demonstrate that a proposed fee(s) satisfies Exchange Act requirements, i.e., that fees be (i) reasonable; (ii) equitably allocated; (iii) not unfairly discriminatory; and (iv) not an unfair burden on competition. See Division of Trading and Markets, Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), available at
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The Commission must assess proposed NMS core data fees to determine whether they are fair and reasonable. The Commission has implemented this standard in the past by examining whether such fees bear a reasonable relation to costs. We urge the Commission to use this same approach to examine the fees that exchanges would charge to competing consolidators and self-aggregators for the underlying market data. For example, this approach could help to reveal whether the exchanges will use their fee-setting ability in a manner intended to recoup revenue lost from the narrowed scope of proprietary data.

We further recommend that the Commission require transparency into the revenue that any new NMS plan that jointly sets fees for the underlying market data would generate. At a minimum, this information should include the amount of revenue generated; the allocation of that revenue; and the amount of any revenue distributed to a plan participant, i.e., the exchanges. These recommendations resemble those that we and others have submitted with respect to the exclusive SIPS’ revenue from the existing consolidated feed.

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We appreciate the opportunity to comment on this significant proposal and urge the Commission to act expeditiously to improve equity market structure for the benefit of investors. If you have any questions, please contact me at (202) 218-3563 or Nhan Nguyen at (202) 326-5810.

Regards,

/s/ Dorothy Donohue  
Deputy General Counsel, Securities Regulation

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37 See Exchange Act Rule 603(a)(1),


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cc: The Honorable Jay Clayton
    The Honorable Hester M. Peirce
    The Honorable Elad L. Roisman
    The Honorable Allison Herren Lee

    Brett Redfearn, Director, Division of Trading and Markets
    Elizabeth Baird, Deputy Director, Division of Trading and Markets
    Christian Sabella, Deputy Director, Division of Trading and Markets
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