

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-82100; File No. SR-NYSEARCA-2017-130)

November 16, 2017

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Changes to the NYSE Arca Equities Proprietary Market Data Fees

Pursuant to Section 19(b)(1)¹ of the Securities Exchange Act of 1934 (the “Act”)² and Rule 19b-4 thereunder,³ notice is hereby given that, on November 3, 2017, NYSE Arca, Inc. (the “Exchange” or “NYSE Arca”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes changes to the NYSE Arca Equities Proprietary Market Data Fees (“Fee Schedule”) to: (1) modify the Redistribution Fee for NYSE ArcaBook and NYSE Arca Integrated Feed; (2) modify the Non-Display Fee for NYSE ArcaBook and NYSE Arca Integrated Feed; and (3) modify Professional User Fees for NYSE ArcaBook and NYSE Arca Integrated Feeds and establish tiered Professional User Fees and a Professional User Fee Cap for Broker-Dealers subscribers of NYSE ArcaBook.

The proposed rule change is available on the Exchange’s website at www.nyse.com, at

¹ 15 U.S.C.78s(b)(1).

² 15 U.S.C. 78a.

³ 17 CFR 240.19b-4.

the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes changes to the Fee Schedule to: (1) modify the Redistribution Fee for NYSE ArcaBook⁴ and NYSE Arca Integrated Feed;⁵ (2) modify the Non-Display Fee for NYSE ArcaBook and NYSE Arca Integrated Feed; and (3)

⁴ See Securities Exchange Act Release Nos. 53592 (June 7, 2006), 71 FR 33496 (June 9, 2006) (SR-NYSEArca-2006-21) ("2006 ArcaBook Notice"); 59039 (December 2, 2008), 73 FR 74770 (December 9, 2008) (SR-NYSEArca-2006-21); 69315 (April 5, 2013), 78 FR 21668 (April 11, 2013) (SR-NYSEArca-2013-37) ("2013 Non-Display Filing"); 72560 (July 8, 2014), 79 FR 40801 (July 14, 2014) (SR-NYSEArca-2014-72) ("2014 ArcaBook Filing"); 73011 (September 5, 2014), 79 FR 54315 (September 11, 2014) (SR-NYSEARCA-2014-93) ("2014 Non-Display Filing"); 74011 (January 7, 2015), 80 FR 1681 (January 13, 2015) (SR-NYSEArca-2014-149) ("2015 ArcaBook Filing"); and 76903 (January 14, 2016), 81 FR 3547 (January 21, 2016) (SR-NYSEArca-2016-01).

⁵ See Securities Exchange Act Release Nos. 66128 (Jan. 10, 2012), 77 FR 2331 (Jan. 17, 2012) (SR-NYSEArca-2011-96); 69315 (April 5, 2013), 78 FR 21668 (April 11, 2013) (SR-NYSEArca-2013-37) ("2013 Non-Display Filing"); 73011 (Sept. 5, 2014), 79 FR 54315 (Sept. 11, 2014) (SR-NYSEArca-2014-93) ("2014 Non-Display Filing"); 73993 (Jan. 6, 2015), 80 FR 1527 (Jan. 12, 2015) (SR-NYSEArca-2014-147); and 76914 (January 14, 2016), 81 FR 3484 (January 21, 2016) (SR-NYSEArca-2016-03).

modify Professional User Fees for NYSE ArcaBook and NYSE Arca Integrated Feeds and establish tiered Professional User Fees and a Professional User Fee Cap for Broker-Dealer subscribers of NYSE ArcaBook. The Exchange proposes to make these fee changes operative on January 1, 2018.

Redistribution Fee

A Redistributor is any person approved by the Exchange that provides an NYSE Arca data product to an external data recipient or to any external system that a data recipient uses, irrespective of the means of transmission or access. The Exchange currently charges a redistribution fee of \$1,500 per month for NYSE ArcaBook and \$3,000 per month for NYSE Arca Integrated Feed. The Exchange proposes to increase the redistribution fee to \$2,000 per month for NYSE ArcaBook and to \$3,750 per month for NYSE Arca Integrated Feed.

Non-Display Fee

Non-Display Use of NYSE Arca market data means accessing, processing, or consuming NYSE Arca market data delivered via direct and/or Redistributor data distribution for a purpose other than in support of a data recipient's display usage or further internal or external redistribution.⁶

There are currently three categories of, and fees applicable to, data recipients for non-display use that are listed on the Fee Schedule:

- Category 1 Fees apply when a data recipient's non-display use of real-time market data is on its own behalf as opposed to use on behalf of its clients;

⁶ See e.g. 2015 ArcaBook Filing, supra note 4.

- Category 2 Fees apply when a data recipient's non-display use of real-time market data is on behalf of its clients as opposed to use on its own behalf; and
- Category 3 Fees apply when a data recipient's non-display use of real-time market data is for the purpose of internally matching buy and sell orders within an organization, including matching customer orders on a data recipient's own behalf and/or on behalf of its clients.

The Exchange proposes to amend non-display use fees for NYSE ArcaBook and NYSE Arca Integrated Feed.

The current non-display fee for NYSE ArcaBook is \$5,000 per month for each of Category 1, Category 2 and Category 3. Category 3 fees are currently capped at \$15,000 per month. The Exchange proposes to increase the non-display fee for NYSE ArcaBook to \$6,000 per month for each of Category 1, Category 2 and Category 3. The Exchange proposes a corresponding increase in the cap for Category 3 fees for NYSE ArcaBook to \$18,000 per month.

The current non-display fee for NYSE Arca Integrated Feed is \$7,000 per month for each of Category 1, Category 2 and Category 3. Category 3 fees are currently capped at \$21,000. The Exchange proposes to increase the non-display fee for NYSE Arca Integrated Feed to \$10,500 per month for each of Category 1, Category 2 and Category 3. The Exchange proposes a corresponding increase in the cap for Category 3 fees for NYSE Arca Integrated Feed to \$31,500 per month.

Professional User Fee

The Exchange currently charges a flat monthly Professional User Fee of \$40 per user for NYSE ArcaBook. The Exchange proposes to increase Professional User Fees for NYSE ArcaBook to \$60 per month. The Exchange also proposes to establish tiered Professional User Fees for broker-dealers that are subscribers of NYSE ArcaBook, as follows:

- \$60 per month for each of 500 or fewer professional users reported for a broker-dealer subscriber, and
- The current rate of \$40 per month for each professional user over 500 reported for a broker-dealer subscriber.

The Exchange notes that it has not increased NYSE ArcaBook subscriber fees for display use since 2014.⁷ With this proposed change, all subscribers would pay more for some of their professional users than they do today. However, some subscribers that qualify for the proposed tiered rate, i.e., subscribers with more than 500 professional users, would pay less under the proposed fee change than they would absent the proposed tiered fees.

In addition, the Exchange proposes to cap the Professional User Fee for broker-dealers that are subscribers of NYSE ArcaBook at \$75,000 per month.

To illustrate the application of the proposed Professional User Fee increase and the Professional Use Fee cap, a broker-dealer with 2,500 professional users who receive NYSE ArcaBook would currently pay \$100,000 per month in Professional User Fees (2,500 users at \$40 per month). If all 2,500 users are internal users, under the proposed fee change, this broker-dealer's Professional User Fees would increase to \$110,000 per

⁷ See Securities Exchange Act Release No. 71483 (February 5, 2014), 79 FR 8217 (February 11, 2014) (SR-NYSEArca-2014-12)

month (500 users at \$60 per month plus 2,000 users at \$40 per month). However, the operation of the proposed cap would cause this broker-dealer's fees to drop to \$75,000 per month. Thus, for this broker-dealer the effect of the proposed changes would be a *decrease* of \$25,000 per month in Professional User Fees.

Further, the Exchange currently charges a flat monthly Professional User Fee of \$40 per month per user for NYSE Arca Integrated Feed. The Exchange proposes to increase the monthly Professional User Fees for NYSE Arca Integrated Feed to \$60 per month per user. The proposed fee change would apply to all professional users of NYSE Arca Integrated Feed.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6 of the Act,⁸ in general, and Sections 6(b)(4) and 6(b)(5) of the Act,⁹ in particular, in that it provides an equitable allocation of reasonable fees among users and recipients of the data and is not designed to permit unfair discrimination among customers, issuers, and brokers.

The Exchange believes that the proposed fee changes are fair and reasonable in light of market and technology developments. The Exchange further believes that the proposed fee changes are also equitable and not unfairly discriminatory because they would apply to all data recipients that choose to subscribe to NYSE ArcaBook and NYSE Arca Integrated Feed.

Redistribution Fee

⁸ 15 U.S.C. 78f(b).

⁹ 15 U.S.C. 78f(b)(4) and (5).

The Exchange believes the proposed changes to the redistribution fee for NYSE ArcaBook and NYSE Arca Integrated Feed are equitable and reasonable because they compare favorably to redistribution fees that are currently charged by other exchanges.¹⁰ The Exchange believes that it is reasonable to charge redistribution fees because vendors receive value from redistributing the data in their business products for their customers. The Exchange believes the proposed change to the redistribution fees also are not unfairly discriminatory because they would continue to be charged on an equal basis to any vendor that chooses to redistribute the data.

Non-Display Fee

The Exchange believes that the proposed fee increases for each of Categories 1, 2, and 3 for NYSE ArcaBook and NYSE Arca Integrated Feed are equitable and reasonable. In establishing the non-display fees in April 2013, the Exchange set its fees at levels that were below or comparable to similar fees charged by certain of its competitors.¹¹ The Exchange then modestly increased such fees in 2014 after gaining further experience with its non-display fee structure. The Exchange believes the proposed fees better reflect the significant value of the non-display data to data recipients, which purchase data on an entirely voluntary basis. Non-display data continues to be used by data recipients for a wide variety of profit-generating purposes, including proprietary and agency trading and

¹⁰ Cboe BZX U.S. Equities Exchange (“BZX Equities”) charges \$5,000 per month for external distribution of the BZX Depth market data product. See https://markets.cboe.com/us/equities/membership/fee_schedule/bzx/. In addition, the Nasdaq Stock Market (“Nasdaq”) charges \$3,750 per month for external distribution of the NASDAQ TotalView market data product. See <https://www.nasdaqtrader.com/Trader.aspx?id=DPUSdata#tv>.

¹¹ See Securities Exchange Act Release No. 69315 (April 5, 2013), 78 FR 21668 (April 11, 2013) (SR-NYSEArca-2013-37).

smart order routing, as well as by data recipients that operate order matching and execution platforms that compete directly with the Exchange for order flow. Non-display data also continues to be used for a variety of non-trading purposes that indirectly support trading, such as risk management and compliance. While some of these non-trading uses do not directly generate profits, they can nonetheless substantially reduce the recipient's costs by automating such functions so that they can be carried out in a more efficient and accurate manner and reduce errors and labor costs, thereby benefitting end users. The Exchange believes that the proposed fees directly and appropriately reflect the significant value of using non-display data in a wide range of computer-automated functions relating to both trading and non-trading activities and that the number and range of these functions continue to grow through innovation and technology developments.¹²

The Exchange believes the proposed fee increases are also reasonable in that they support the Exchange's efforts to regularly upgrade systems to support more modern data distribution formats and protocols as technology evolves. For example, the Exchange's extensive improvements to its trading platform and feed technology has significantly lowered the latency of its proprietary data products available over the XDP protocol, which transmits data faster and more efficiently than the Exchange's previous data distribution channel. For example, the average latency of NYSE ArcaBook and NYSE Arca Integrated Feed is approximately one-third of what it was in 2014.

¹² See also Exchange Act Release No. 69157, March 18, 2013, 78 FR 17946, 17949 (March 25, 2013) (SR-CTA/CQ-2013-01) (“[D]ata feeds have become more valuable, as recipients now use them to perform a far larger array of non-display functions. Some firms even base their business models on the incorporation of data feeds into black boxes and application programming interfaces that apply trading algorithms to the data, but that do not require widespread data access by the firm's employees. As a result, these firms pay little for data usage beyond access fees, yet their data access and usage is critical to their businesses.”).

The Exchange believes the proposed fees are competitive with offerings by other exchanges, which structure and set their fees comparably. For example, Nasdaq charges professional subscribers monthly fees for non-display usage based upon direct access to NASDAQ level 2, NASDAQ TotalView, or NASDAQ OpenView, which range from \$375 per month for customers with one to 39 subscribers to \$75,000 per month for customers with 250 or more subscribers.¹³ In addition, Nasdaq PHLX (“PHLX”) offers an alternative \$10,000 per month “Non-Display Enterprise License” fee that permits distribution to an unlimited number of internal non-display subscribers without incurring additional fees for each internal subscriber.¹⁴ The Non-Display Enterprise License covers non-display subscriber fees for all PHLX proprietary direct data feed products and is in addition to any other associated distributor fees for PHLX proprietary direct data fee products.

Professional User Fee

The Exchange believes that the proposed subscriber fees are reasonable, equitable and not unfairly discriminatory because the fee structure of differentiated professional and non-professional fees has long been used by the Exchange for other products, by other exchanges for their products, and by the CTA and CQ Plans in order to make data more broadly available.

The Exchange believes that the tiered structure with decreasing fees as the number of professional subscribers increase is equitable and not unfairly discriminatory because it is similar to the tiered structure used for professional subscribers by the CTA

¹³ See Nasdaq Rule 7023(b)(4).

¹⁴ See Section IX of the PHLX Pricing Schedule.

and CQ for Network A data¹⁵ Broker-dealers that purchase NYSE ArcaBook typically have more than 500 professional users and would therefore be impacted by the change in fees for up to the first 500 such users. The fees for such broker-dealers for users above that level will remain at the current level. Additionally, as proposed, professional user fees will be based on a tiered fee structure that depends on the number of users, with a reduced per user rate for those professional users that exceed 500. Subscribers would pay \$60 per user per month for 500 and fewer users, and would pay the current rate of \$40 per user per month for those users that exceed 500. This tiered structure is an equitable allocation of reasonable dues, fees and other charges because the proposed fees are commensurate with the value of the data feed.

The Exchange further believes the proposed monthly Professional User Fee of \$60 for NYSE ArcaBook and NYSE Arca Integrated Feed is reasonable because the proposed fee is comparable to the \$60 per month fee currently charged by the New York Stock Exchange LLC (“NYSE”) to professional users of the NYSE OpenBook market data product,¹⁶ and is lower than the \$76 per month fee currently charged by Nasdaq to professional users of the Nasdaq TotalView market data product.¹⁷ And as noted above, the Exchange has not raised the subscriber fees for display use of NYSE ArcaBook since 2014 and for NYSE Arca Integrated Feed since 2013 when fees for NYSE Arca

¹⁵ Those monthly fees are \$50 for 1-2 devices, \$30 for 3-999 devices, \$25 for 1,000-9,999 devices, and \$20 for 10,000 or more devices. See CTA Network A Rate Schedule, available at <http://www.nyxdata.com/nysedata/default.aspx?tabid=518>.

¹⁶ See NYSE Proprietary Market Data Fees at https://www.nyse.com/publicdocs/nyse/data/NYSE_Market_Data_Fee_Schedule.pdf.

¹⁷ See Nasdaq Price List – U.S. Equities at <https://www.nasdaqtrader.com/Trader.aspx?id=DPUSdata#tv>.

Integrated Feed were first adopted. Since then, the Exchange has continually enhanced its market data products through technology upgrades to meet industry and customer demands. The Exchange believes that the proposed fees are fair and reasonable in light of the Exchange's ongoing effort to improve the delivery technology for market data.

The Exchange believes that it is reasonable to establish the Professional Fee Cap. The purpose of the Professional User Fee is to charge for each use of NYSE ArcaBook data feed. The Exchange believes it is appropriate to charge user fees for employees that work on different trading desks or who provide advisory services. These internal uses are intended to provide value to customers of the broker-dealer, whether in the execution of trades, or with designing an investment portfolio, and are therefore an integral part of a broker-dealer's business model. While the Exchange anticipates that only the largest broker-dealers would avail themselves to the proposed fee cap, in the Exchange's view, limiting the fee exposure of a subset of its customers, i.e., large broker-dealers, does not unreasonably discriminate against other customers under Section 603(a)(2) of Regulation NMS. Additionally, the Exchange notes that fee caps have long been accepted as an economically efficient form of volume discount for the heaviest users of market data and would allow for a broad dissemination of the Exchange's market data product.¹⁸ The concept of adopting a fee cap applicable to broker-dealer subscribers is not novel. The Exchange currently has a Non-Professional Fee Cap applicable to Broker-Dealers only that subscribe to NYSE ArcaBook.¹⁹

¹⁸ See e.g., Nasdaq Rule 7023(c), Enterprise License Fees at http://nasdaq.cchwallstreet.com/NASDAQTools/PlatformViewer.asp?selectednode=chp_1_1_4_6&manual=%2Fnasdaq%2Fmain%2Fnasdaq-equityrules%2F.

¹⁹ See NYSE Arca Equities Proprietary Market Data Fees at https://www.nyse.com/publicdocs/nyse/data/NYSE_Arca_Equities_Fee_Schedule

The Exchange proposes these higher fees in light of the fact that since 2014, the value of NYSE ArcaBook and NYSE Arca Integrated Feed data feeds has increased significantly while fees for these products have not increased. The Exchange notes that in that time, the Exchange has continually upgraded its technology to keep pace with changes in the industry and evolving customer needs. Further, the standardization of the market data specifications recently implemented by the Exchange may provide value to subscribers that utilize data feeds from more than one NYSE market. This standardization enables greatly increased efficiency for firms by allowing them to leverage their development work on one market across multiple markets and reduces the overall impact of the price increases.

The Exchange notes that NYSE ArcaBook and NYSE Arca Integrated Feed are entirely optional. Firms are not required to purchase NYSE ArcaBook and NYSE Arca Integrated Feed. Firms that do purchase NYSE ArcaBook and NYSE Arca Integrated Feed do so for the primary goals of using the data feeds to increase profits, reduce expenses, and in some instances compete directly with the Exchange (including for order flow); those firms are able to determine for themselves whether NYSE ArcaBook and NYSE Arca Integrated Feed or any other similar products are attractively priced or not.

Firms that do not wish to purchase NYSE ArcaBook and NYSE Arca Integrated Feed at the new prices have a variety of alternative market data products from which to choose,²⁰ or if NYSE ArcaBook and NYSE Arca Integrated Feed does not provide

[.pdf](#). See also Securities Exchange Act Release Nos. 59039 (December 2, 2008), 73 FR 74770 (December 9, 2008) (SR-NYSEArca-2006-21); 72560 (July 8, 2014), 79 FR 40801 (July 14, 2014) (SR-NYSEArca-2014-72); and 76903 (January 14, 2016), 81 FR 3547 (January 21, 2016) (SR-NYSEArca-2016-01).

²⁰ See Nasdaq Rule 7023 (Nasdaq TotalView) and BZX Equities Rule 11.22(a) and

sufficient value to firms as offered based on the uses those firms have or planned to make of it, such firms may simply choose to conduct their business operations in ways that do not use NYSE ArcaBook and NYSE Arca Integrated Feed or use them at different levels or in different configurations. The Exchange notes that broker-dealers are not required to purchase proprietary market data to comply with their best execution obligations.²¹

The decision of the United States Court of Appeals for the District of Columbia Circuit in NetCoalition v. SEC, 615 F.3d 525 (D.C. Cir. 2010), upheld reliance by the Securities and Exchange Commission (“Commission”) upon the existence of competitive market mechanisms to set reasonable and equitably allocated fees for proprietary market data:

In fact, the legislative history indicates that the Congress intended that the market system ‘evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed’ and that the SEC wield its regulatory power ‘in those situations where competition may not be sufficient,’ such as in the creation of a ‘consolidated transactional reporting system.’

Id. at 535 (quoting H.R. Rep. No. 94–229 at 92 (1975), as reprinted in 1975 U.S.C.C.A.N. 323). The court agreed with the Commission’s conclusion that “Congress intended that ‘competitive forces should dictate the services and practices that constitute

(c) (TCP Depth and Multicast Depth).

²¹ See FINRA Regulatory Notice 15-46, “Best Execution,” November 2015.

the U.S. national market system for trading equity securities.”²²

As explained below in the Exchange’s Statement on Burden on Competition, the Exchange believes that there is substantial evidence of competition in the marketplace for proprietary market data and that the Commission can rely upon such evidence in concluding that the fees established in this filing are the product of competition and therefore satisfy the relevant statutory standards. In addition, the existence of alternatives to these data products, such as consolidated data and proprietary data from other sources, as described below, further ensures that the Exchange cannot set unreasonable fees, or fees that are unreasonably discriminatory, when vendors and subscribers can select such alternatives.

As the NetCoalition decision noted, the Commission is not required to undertake a cost-of-service or ratemaking approach. The Exchange believes that, even if it were possible as a matter of economic theory, cost-based pricing for proprietary market data would be so complicated that it could not be done practically or offer any significant benefits.²³

²² NetCoalition, 615 F.3d at 535.

²³ The Exchange believes that cost-based pricing would be impractical because it would create enormous administrative burdens for all parties and the Commission to cost-regulate a large number of participants and standardize and analyze extraordinary amounts of information, accounts, and reports. In addition, and as described below, it is impossible to regulate market data prices in isolation from prices charged by markets for other services that are joint products. Cost-based rate regulation would also lead to litigation and may distort incentives, including those to minimize costs and to innovate, leading to further waste. Under cost-based pricing, the Commission would be burdened with determining a fair rate of return, and the industry could experience frequent rate increases based on escalating expense levels. Even in industries historically subject to utility regulation, cost-based ratemaking has been discredited. As such, the Exchange believes that cost-based ratemaking would be inappropriate for proprietary market data and inconsistent with Congress’s direction that the Commission use its

For the reasons stated above, the Exchange believes that the proposed fees are fair and equitable, and not unreasonably discriminatory. As described above, the proposed fees are based on pricing conventions and distinctions that exist in the Exchange's current fee schedule, and the fee schedules of other exchanges. These distinctions are each based on principles of fairness and equity that have helped for many years to maintain fair, equitable, and not unreasonably discriminatory fees, and that apply with equal or greater force to the current proposal. Thus, although the proposal results in a fee increase, these increases are based on careful analysis of empirical data and the application of time-tested pricing principles accepted and applied by the Commission for many years.

As described in greater detail below, if the market deems the NYSE ArcaBook and NYSE Integrated Feeds not to provide fair value at the prices to be charged, firms can discontinue or change the ways they use these products because the products are optional to all parties. The Exchange continually reviews pricing policies aimed at increasing fairness and equitable allocation of fees among subscribers. NYSE Arca believes that periodically it must adjust the subscriber fees to reflect market forces and the Exchange believes it is an appropriate time to adjust the fees that are the subject of this proposed rule change to more accurately reflect the investments made to enhance these products through technology upgrades.

For these reasons, the Exchange believes that the proposed fees are reasonable, equitable, and not unfairly discriminatory.

authority to foster the development of the national market system, and that market forces will continue to provide appropriate pricing discipline. See Appendix C to NYSE's comments to the Commission's 2000 Concept Release on the Regulation of Market Information Fees and Revenues, which can be found on the Commission's website at <http://www.sec.gov/rules/concept/s72899/buck1.htm>.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. An exchange's ability to price its proprietary market data feed products is constrained by actual competition for the sale of proprietary market data products, the joint product nature of exchange platforms, and the existence of alternatives to the Exchange's proprietary data.

The Existence of Actual Competition.

The market for proprietary data products is competitive and inherently contestable because there is fierce competition for the inputs necessary for the creation of proprietary data and strict pricing discipline for the proprietary products themselves. Numerous exchanges compete with one another for listings and order flow and sales of market data itself, providing ample opportunities for entrepreneurs who wish to compete in any or all of those areas, including producing and distributing their own market data. Proprietary data products are produced and distributed by each individual exchange, as well as other entities, in a vigorously competitive market. Indeed, the U.S. Department of Justice ("DOJ") (the primary antitrust regulator) has expressly acknowledged the aggressive actual competition among exchanges, including for the sale of proprietary market data. In 2011, the DOJ stated that exchanges "compete head to head to offer real-time equity data products. These data products include the best bid and offer of every exchange and information on each equity trade, including the last sale."²⁴

²⁴ Press Release, U.S. Department of Justice, Assistant Attorney General Christine Varney Holds Conference Call Regarding NASDAQ OMX Group Inc. and IntercontinentalExchange Inc. Abandoning Their Bid for NYSE Euronext (May

Moreover, competitive markets for listings, order flow, executions, and transaction reports impose pricing discipline for the inputs of proprietary data products and therefore constrain markets from overpricing proprietary market data. Broker-dealers send their order flow and transaction reports to multiple venues, rather than providing them all to a single venue, which in turn reinforces this competitive constraint. As a 2010 Commission Concept Release noted, the “current market structure can be described as dispersed and complex” with “trading volume ... dispersed among many highly automated trading centers that compete for order flow in the same stocks” and “trading centers offer[ing] a wide range of services that are designed to attract different types of market participants with varying trading needs.”²⁵ More recently, former SEC Chair Mary Jo White reported that competition for order flow in exchange-listed equities is “intense” and divided among many trading venues, including exchanges, more than 40 alternative trading systems, and more than 250 broker-dealers.²⁶ And as the

16, 2011), available at <http://www.justice.gov/iso/opa/atr/speeches/2011/at-speech-110516.html>; see also Complaint in U.S. v. Deutsche Borse AG and NYSE Euronext, Case No. 11-cv-2280 (D.C. Dist.) ¶ 24 (“NYSE and Direct Edge compete head-to-head ... in the provision of real-time proprietary equity data products.”).

²⁵ Concept Release on Equity Market Structure, Securities Exchange Act Release No. 61358 (Jan. 14, 2010), 75 FR 3594 (Jan. 21, 2010) (File No. S7-02-10). This Concept Release included data from the third quarter of 2009 showing that no market center traded more than 20% of the volume of listed stocks, further evidencing the dispersal of and competition for trading activity. *Id.* at 3598. Data available on ArcaVision show that from June 30, 2013 to June 30, 2014, no exchange traded more than 12% of the volume of listed stocks by either trade or dollar volume, further evidencing the continued dispersal of and fierce competition for trading activity. See <https://www.arcavision.com/Arcavision/arcalogin.jsp>.

²⁶ Mary Jo White, Enhancing Our Equity Market Structure, Sandler O’Neill & Partners, L.P. Global Exchange and Brokerage Conference (June 5, 2014) (available on the Commission website), citing Tuttle, Laura, 2014, “OTC Trading:

Commission’s own Chief Administrative Law Judge found after considering extensive fact and expert testimony and documentary evidence on the subject, “there is fierce competition for trading services (or ‘order flow’)” among exchanges, and “the record evidence shows that competition plays a significant role in restraining exchange pricing of depth-of-book products.” In the Matter of the Application of Securities Industry And Financial Markets Association For Review of Actions Taken By Self-Regulatory Organizations, Initial Decision Release No. 1015, Administrative Proceeding File No. 3-15350 (June 1, 2016), at pp. 8 and 33.

If an exchange succeeds in competing for quotations, order flow, and trade executions, then it earns trading revenues and increases the value of its proprietary market data products because they will contain greater quote and trade information. Conversely, if an exchange is less successful in attracting quotes, order flow, and trade executions, then its market data products may be less desirable to customers in light of the diminished content and data products offered by competing venues may become more attractive. Thus, competition for quotations, order flow, and trade executions puts significant pressure on an exchange to maintain both execution and data fees at reasonable levels.

In addition, in the case of products that are also redistributed through market data vendors, such as Bloomberg and Thompson Reuters, the vendors themselves provide additional price discipline for proprietary data products because they control the primary means of access to certain end users. These vendors impose price discipline based upon their business models. For example, vendors that assess a surcharge on data they sell are

Description of Non-ATS OTC Trading in National Market System Stocks,” at 7-8.

able to refuse to offer proprietary products that their end users do not or will not purchase in sufficient numbers. Vendors will not elect to make NYSE ArcaBook and NYSE Arca Integrated Feed available unless their customers request it, and customers will not elect to pay the proposed fees unless NYSE ArcaBook and NYSE Arca Integrated Feed can provide value by sufficiently increasing revenues or reducing costs in the customer’s business in a manner that will offset the fees. All of these factors operate as constraints on pricing proprietary data products.

Joint Product Nature of Exchange Platform

Transaction execution and proprietary data products are complementary in that market data is both an input and a byproduct of the execution service. In fact, proprietary market data and trade executions are a paradigmatic example of joint products with joint costs.²⁷ The decision of whether and on which platform to post an order will depend on the attributes of the platforms where the order can be posted, including the execution fees, data availability and quality, and price and distribution of data products. Without a platform to post quotations, receive orders, and execute trades, exchange data products would not exist.

The costs of producing market data include not only the costs of the data distribution infrastructure, but also the costs of designing, maintaining, and operating the exchange’s platform for posting quotes, accepting orders, and executing transactions and the cost of regulating the exchange to ensure its fair operation and maintain investor

²⁷ See generally Pricing of Market Data Services, An Economic Analysis at vi (“Given the general structure of electronic order books and electronic order matching, it is not possible to provide transaction services without generating market data, and it is not possible to generate trade transaction—or market depth—data without also supplying a trade execution service. In economic terms, trade execution and market data are joint products.”) (Oxera 2014).

confidence. The total return that a trading platform earns reflects the revenues it receives from both products and the joint costs it incurs.

Moreover, an exchange's broker-dealer customers generally view the costs of transaction executions and market data as a unified cost of doing business with the exchange. A broker-dealer will only choose to direct orders to an exchange if the revenue from the transaction exceeds its cost, including the cost of any market data that the broker-dealer chooses to buy in support of its order routing and trading decisions. If the costs of the transaction are not offset by its value, then the broker-dealer may choose instead not to purchase the product and trade away from that exchange. There is substantial evidence of the strong correlation between order flow and market data purchases. For example, in September 2015, more than 80% of the transaction volume on each of the Exchange and the Exchange's affiliates, NYSE and NYSE American LLC ("NYSE American"), was executed by market participants that purchased one or more proprietary market data products (the 20 firms were not the same for each market). A supra-competitive increase in the fees for either executions or market data would create a risk of reducing an exchange's revenues from both products.

Other market participants have noted that proprietary market data and trade executions are joint products of a joint platform and have common costs.²⁸ The

²⁸ See Securities Exchange Act Release No. 72153 (May 12, 2014), 79 FR 28575, 28578 n.15 (May 16, 2014) (SR-NASDAQ-2014-045) ("[A]ll of the exchange's costs are incurred for the unified purposes of attracting order flow, executing and/or routing orders, and generating and selling data about market activity. The total return that an exchange earns reflects the revenues it receives from the joint products and the total costs of the joint products."). See also Securities Exchange Act Release No. 62907 (Sept. 14, 2010), 75 FR 57314, 57317 (Sept. 20, 2010) (SR-NASDAQ-2010-110), and Securities Exchange Act Release No. 62908 (Sept. 14, 2010), 75 FR 57321, 57324 (Sept. 20, 2010) (SR-NASDAQ-2010-111).

Exchange agrees with and adopts those discussions and the arguments therein. The Exchange also notes that the economics literature confirms that there is no way to allocate common costs between joint products that would shed any light on competitive or efficient pricing.²⁹

Analyzing the cost of market data product production and distribution in isolation from the cost of all of the inputs supporting the creation of market data and market data products will inevitably underestimate the cost of the data and data products because it is impossible to obtain the data inputs to create market data products without a fast, technologically robust, and well-regulated execution system, and system and regulatory costs affect the price of both obtaining the market data itself and creating and distributing market data products. It would be equally misleading, however, to attribute all of an exchange's costs to the market data portion of an exchange's joint products. Rather, all of an exchange's costs are incurred for the unified purposes of attracting order flow, executing and/or routing orders, and generating and selling data about market activity. The total return that an exchange earns reflects the revenues it receives from the joint

²⁹ See generally Mark Hirschey, *FUNDAMENTALS OF MANAGERIAL ECONOMICS*, at 600 (2009) (“It is important to note, however, that although it is possible to determine the separate marginal costs of goods produced in variable proportions, it is impossible to determine their individual average costs. This is because common costs are expenses necessary for manufacture of a joint product. Common costs of production—raw material and equipment costs, management expenses, and other overhead—cannot be allocated to each individual by-product on any economically sound basis.... Any allocation of common costs is wrong and arbitrary.”). This is not new economic theory. See, e.g., F. W. Taussig, “A Contribution to the Theory of Railway Rates,” *Quarterly Journal of Economics* V(4) 438, 465 (July 1891) (“Yet, surely, the division is purely arbitrary. These items of cost, in fact, are jointly incurred for both sorts of traffic; and I cannot share the hope entertained by the statistician of the Commission, Professor Henry C. Adams, that we shall ever reach a mode of apportionment that will lead to trustworthy results.”).

products and the total costs of the joint products.

As noted above, the level of competition and contestability in the market is evident in the numerous alternative venues that compete for order flow, including 12 equities self-regulatory organization (“SRO”) markets, as well as various forms of alternative trading systems (“ATs”), including dark pools and electronic communication networks (“ECNs”), and internalizing broker-dealers. SRO markets compete to attract order flow and produce transaction reports via trade executions, and two FINRA-regulated Trade Reporting Facilities compete to attract transaction reports from the non-SRO venues.

Competition among trading platforms can be expected to constrain the aggregate return that each platform earns from the sale of its joint products, but different trading platforms may choose from a range of possible, and equally reasonable, pricing strategies as the means of recovering total costs. For example, some platforms may choose to pay rebates to attract orders, charge relatively low prices for market data products (or provide market data products free of charge), and charge relatively high prices for accessing posted liquidity. Other platforms may choose a strategy of paying lower rebates (or no rebates) to attract orders, setting relatively high prices for market data products, and setting relatively low prices for accessing posted liquidity. For example, Cboe Global Markets f/k/a Bats Global Markets (“Bats”) and Direct Edge, which previously operated as ATs and obtained exchange status in 2008 and 2010, respectively, provided certain market data at no charge on their websites in order to attract more order flow, and used revenue rebates from resulting additional executions to maintain low execution charges

for their users.³⁰ More recently, Investors Exchange (“IEX”), which began to operate as an ATS in 2013 and later obtained exchange status in 2016, currently provides market data at no charge in order to attract order flow and build market share. In this environment, there is no economic basis for regulating maximum prices for one of the joint products in an industry in which suppliers face competitive constraints with regard to the joint offering.

Existence of Alternatives

The large number of SROs, ATSS, and internalizing broker-dealers that currently produce proprietary data or are currently capable of producing it provides further pricing discipline for proprietary data products. Each SRO, ATS, and broker-dealer is currently permitted to produce and sell proprietary data products, and many currently do, including but not limited to the Exchange, NYSE, NYSE American, Nasdaq, and Bats.

The fact that proprietary data from ATSS, internalizing broker-dealers, and vendors can bypass SROs is significant in two respects. First, non-SROs can compete directly with SROs for the production and sale of proprietary data products. By way of example, Bats and NYSE Arca both published proprietary data on the Internet before registering as exchanges. Second, because a single order or transaction report can appear in an SRO proprietary product, a non-SRO proprietary product, or both, the amount of data available via proprietary products is greater in size than the actual number of orders and transaction reports that exist in the marketplace. With respect to NYSE ArcaBook

³⁰ This is simply a securities market-specific example of the well-established principle that in certain circumstances more sales at lower margins can be more profitable than fewer sales at higher margins; this example is additional evidence that market data is an inherent part of a market’s joint platform.

and NYSE Arca Integrated Feed, competitors offer close substitute products.³¹ Because market data users can find suitable substitutes for most proprietary market data products, a market that overprices its market data products stands a high risk that users may substitute another source of market data information for its own.

Those competitive pressures imposed by available alternatives are evident in the Exchange's proposed pricing.

In addition to the competition and price discipline described above, the market for proprietary data products is also highly contestable because market entry is rapid and inexpensive. The history of electronic trading is replete with examples of entrants that swiftly grew into some of the largest electronic trading platforms and proprietary data producers: Archipelago, Bloomberg Tradebook, Island, RediBook, Attain, TrackECN, Bats and Direct Edge. As noted above, Bats launched as an ATS in 2006 and became an exchange in 2008, while Direct Edge began operations in 2007 and obtained exchange status in 2010. And more recently, IEX, which started operating as an ATS in 2013 has accumulated more than 2% market share since it obtained exchange status in 2016.

In determining the proposed changes to the fees for NYSE ArcaBook and NYSE Arca Integrated Feed, the Exchange considered the competitiveness of the market for proprietary data and all of the implications of that competition. The Exchange believes that it has considered all relevant factors and has not considered irrelevant factors in order to establish fair, reasonable, and not unreasonably discriminatory fees and an equitable allocation of fees among all users. The existence of numerous alternatives to the Exchange's products, including proprietary data from other sources, ensures that the

³¹ See supra note 20.

Exchange cannot set unreasonable fees, or fees that are unreasonably discriminatory, when vendors and subscribers can elect these alternatives or choose not to purchase a specific proprietary data product if the attendant fees are not justified by the returns that any particular vendor or data recipient would achieve through the purchase.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change is effective upon filing pursuant to Section 19(b)(3)(A)³² of the Act and subparagraph (f)(2) of Rule 19b-4³³ thereunder, because it establishes a due, fee, or other charge imposed by the Exchange.

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings under Section 19(b)(2)(B)³⁴ of the Act to determine whether the proposed rule change should be approved or disapproved.

³² 15 U.S.C. 78s(b)(3)(A).

³³ 17 CFR 240.19b-4(f)(2).

³⁴ 15 U.S.C. 78s(b)(2)(B).

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-NYSEARCA-2017-130 on the subject line.

Paper comments:

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-NYSEARCA-2017-130. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m.

and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-NYSEARCA-2017-130 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.³⁵

Eduardo A. Aleman
Assistant Secretary

³⁵ 17 CFR 200.30-3(a)(12).