June 3, 2022

Self-Regulatory Organizations; MEMX LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the Exchange’s Fee Schedule to Adopt Market Data Fees

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”),\(^1\) and Rule 19b-4 thereunder,\(^2\) notice is hereby given that on March 24, 2022, MEMX LLC (“MEMX” or the “Exchange”) 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 Exchange. 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 is filing with the Commission a proposed rule change to amend the Exchange’s fee schedule applicable to Members\(^3\) and non-Members (the “Fee Schedule”) pursuant to Exchange Rules 15.1(a) and (c). The Exchange proposes to implement the changes to the Fee Schedule pursuant to this proposal immediately. The text of the proposed rule change is provided in Exhibit 5.

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 Exchange included statements concerning the

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\(^3\) See Exchange Rule 1.5(p).
purpose of and basis for the proposed rule change and discussed any comments it received on the
proposed rule change. The text of these 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 aspects of such statements.

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

   1. Purpose

   Background

   The purpose of the proposed rule change is to amend the Fee Schedule to adopt fees the
   Exchange will charge to Members and non-Members for each of its three proprietary market data
   feeds, namely MEMOIR Depth, MEMOIR Top, and MEMOIR Last Sale (collectively, the
   “Exchange Data Feeds”). As set forth below, the Exchange believes that the proposed fees are
   fair and reasonable and has based its proposal on the fact that competitive forces exist with
   respect to the Exchange Data Feeds, a comparison to competitor pricing, as well as a cost
   analysis intended to provide transparency to the Commission and to the industry at large. The
   Exchange is proposing to implement the proposed fees immediately.

   Before setting forth the additional details regarding the existence of competitive forces,
   the comparison to competitor pricing and the Exchange’s cost analysis for transparency
   purposes, immediately below is a description of the proposed fees.

   Proposed Market Data Pricing

   The Exchange offers three separate data feeds to subscribers – MEMOIR Depth,
   MEMOIR Top and MEMOIR Last Sale. The Exchange notes that there is no requirement that
   any Firm subscribe to a particular Exchange Data Feed or any Exchange Data Feed whatsoever,
   but instead, a Firm may choose to maintain subscriptions to those Exchange Data Feeds they
deem appropriate based on their business model. The proposed fee will not apply differently based upon the size or type of Firm, but rather based upon the subscriptions a Firm has to Exchange Data Feeds and their use thereof, which are in turn based upon factors deemed relevant by each Firm. The proposed pricing for each of the Exchange Data Feeds is set forth below.

**MEMOIR Depth**

The MEMOIR Depth feed is a MEMX-only market data feed that contains all displayed orders for securities trading on the Exchange (i.e., top and depth-of-book order data), order executions (i.e., last sale data), order cancellations, order modifications, order identification numbers, and administrative messages.⁴ The Exchange proposes to charge each of the fees set forth below for MEMOIR Depth.

1. **Internal Distribution Fee.** For the receipt of access to the MEMOIR Depth feed, the Exchange proposes to charge $1,500 per month. This proposed access fee would be charged to any data recipient that receives a data feed of the MEMOIR Depth feed for purposes of internal distribution (i.e., an “Internal Distributor”). The Exchange proposes to define an Internal Distributor as “a Distributor that receives an Exchange Data product and then distributes that data to one or more data recipients within the Distributor’s own organization.”⁵ The proposed access fee for internal distribution will be charged only once per month per subscribing entity (“Firm”). The Exchange notes that it has proposed to use the phrase “own organization” in the definition of Internal Distributor and External Distributor because a Firm will be permitted to share data received from an Exchange

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⁴ See MEMX Rule 13.8(a).

⁵ See Market Data Definitions under the proposed MEMX Fee Schedule. The Exchange also proposes to adopt a definition for “Distributor”, which would mean any entity that receives an Exchange Data product directly from the Exchange or indirectly through another entity and then distributes internally or externally to a third party.
Data product to other legal entities affiliated with the Firm that have been disclosed to the
Exchange without such distribution being considered external to a third party. For
instance, if a company has multiple affiliated broker-dealers under the same holding
company, that company could have one of the broker-dealers or a non-broker-dealer
affiliate subscribe to an Exchange Data product and then share the data with other
affiliates that have a need for the data. This sharing with affiliates would not be
considered external distribution to a third party but instead would be considered internal
distribution to data recipients within the Distributor’s own organization.

2. **External Distribution Fee.** For redistribution of the MEMOIR Depth feed, the
Exchange proposes to establish an access fee of $2,500 per month. The proposed
redistribution fee would be charged to any External Distributor of the MEMOIR Depth
feed, which would be defined to mean “a Distributor that receives an Exchange Data
product and then distributes that data to a third party or one or more data recipients
outside the Distributor’s own organization.” The proposed access fee for external
distribution will be charged only once per month per Firm. As noted above, while a Firm
will be permitted to share data received from an Exchange Data product to other legal
entities affiliated with the Firm that have been disclosed to the Exchange without such
distribution being considered external to a third party, if a Firm distributes data received
from an Exchange Data product to an unaffiliated third party that would be considered
distribution to data recipients outside the Distributor’s own organization and the access
fee for external distribution would apply.

3. **Non-Display Use Fees.** The Exchange proposes to establish separate non-display

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6 See Market Data Definitions under the proposed MEMX Fee Schedule.
fees for usage by Trading Platforms and other Users (i.e., not by Trading Platforms). ⁷

Non-Display Usage would be defined to mean “any method of accessing an Exchange Data product that involves access or use by a machine or automated device without access or use of a display by a natural person or persons.” ⁸ For Non-Display Usage of the MEMOIR Depth feed not by Trading Platforms, the Exchange proposes to establish a fee of $1,500 per month. ⁹ For Non-Display Usage of the MEMOIR Depth feed by Trading Platforms, the Exchange proposes to establish a fee of $4,000 per month. The proposed fees for Non-Display Usage will be charged only once per category per Firm. ¹⁰

In other words, with respect to Non-Display Usage Fees, a Firm that uses MEMOIR Depth for non-display purposes but does not operate a Trading Platform would pay $1,500 per month, a Firm that uses MEMOIR Depth in connection with the operation of one or more Trading Platforms (but not for other purposes) would pay $4,000 per month,

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⁷ The Exchange proposes to define a Trading Platform as “any execution platform operated as or by a registered National Securities Exchange (as defined in Section 3(a)(1) of the Exchange Act), an Alternative Trading System (as defined in Rule 300(a) of Regulation ATS), or an Electronic Communications Network (as defined in Rule 600(b)(23) of Regulation NMS).” ⁸ See Market Data Definitions under the proposed MEMX Fee Schedule.

⁸ See Market Data Definitions under the proposed MEMX Fee Schedule.

⁹ Non-Display Usage not by Trading Platforms would include trading uses such as high frequency or algorithmic trading as well as any trading in any asset class, automated order or quote generation and/or order pegging, price referencing for smart order routing, operations control programs, investment analysis, order verification, surveillance programs, risk management, compliance, and portfolio management.

¹⁰ The Exchange proposes to adopt note 1 to the proposed Market Data fees table, which would make clear to subscribers that use of the data for multiple non-display purposes or operate more than one Trading Platform would only be charged once per category per month. Thus, the footnote makes clear that each fee applicable to Non-Display Usage is charged per subscriber (e.g., a Firm) and that each of the fees represents the maximum charge per month per subscriber regardless of the number of non-display uses and/or Trading Platforms operated by the subscriber, as applicable.
and a Firm that uses MEMOIR Depth for non-display purposes other than operating a Trading Platform and for the operation of one or more Trading Platforms would pay $5,500 per month.

4. **User Fees.** The Exchange proposes to charge a Professional User Fee (per User) of $30 per month and a Non-Professional User Fee (per User) of $3 per month. The proposed User fees would apply to each person that has access to the MEMOIR Depth feed for displayed usage. Thus, each Distributor’s count will include every individual that accesses the data regardless of the purpose for which the individual uses the data. Internal Distributors and External Distributors of the MEMX Depth feed must report all Professional and Non-Professional Users in accordance with the following:

- In connection with a Distributor’s distribution of the MEMOIR Depth feed, the Distributor must count as one User each unique User that the Distributor has entitled to have access to the MEMOIR Depth feed.
- Distributors must report each unique individual person who receives access through multiple devices or multiple methods (e.g., a single User has multiple passwords and user identifications) as one User.
- If a Distributor entitles one or more individuals to use the same device, the Distributor must include only the individuals, and not the device, in the count. Thus, Distributors would not be required to report User device counts associated with a User’s display use of the data feed.

5. **Enterprise Fee.** Other than the Digital Media Enterprise Fee described below, the Exchange is not proposing to adopt an Enterprise Fee for the MEMOIR Depth feed at this time.
6. **Digital Media Enterprise Fee.** As an alternative to User fees, a recipient Firm may purchase a monthly Digital Media Enterprise license to receive MEMOIR Depth for distribution to an unlimited number of Users for viewing via television, websites, and mobile devices for informational and non-trading purposes only. The Exchange proposes to establish a fee of $5,000 per month for a Digital Media Enterprise license to the MEMOIR Depth feed.

**MEMOIR Top**

The MEMOIR Top feed is a MEMX-only market data feed that contains top of book quotations based on equity orders entered into the System as well as administrative messages.\(^{11}\)

The Exchange proposes to charge each of the fees set forth below for MEMOIR Top.

1. **Internal Distribution Fee.** For the receipt of access to the MEMOIR Top feed, the Exchange proposes to charge $750 per month. This proposed access fee would be charged to any data recipient that receives a data feed of the MEMOIR Top feed for purposes of internal distribution (i.e., an Internal Distributor). The proposed access fee for internal distribution will be charged only once per month per Firm.

2. **External Distribution Fee.** For redistribution of the MEMOIR Top feed, the Exchange proposes to establish an access fee of $2,000 per month. The proposed redistribution fee would be charged to any External Distributor of the MEMOIR Top feed. The proposed access fee for external distribution will be charged only once per month per Firm.

3. **Non-Display Use Fees.** The Exchange does not propose to establish non-display fees for usage by Trading Platforms or other Users with respect to MEMOIR Top.

\(^{11}\) *See* MEMX Rule 13.8(b).*
4. **User Fees.** The Exchange proposes to charge a Professional User Fee (per User) of $0.01 per month and a Non-Professional User Fee (per User) of $0.01 per month. The proposed User fees would apply to each person that has access to the MEMOIR Top feed that is provided by an External Distributor for displayed usage. The Exchange does not propose any per User fees for internal distribution of the MEMOIR Top feed. Each External Distributor’s count will include every individual that accesses the data regardless of the purpose for which the individual uses the data. External Distributors of the MEMOIR Top feed must report all Professional and Non-Professional Users\(^\text{12}\) in accordance with the following:

- In connection with an External Distributor’s distribution of the MEMOIR Top feed, the Distributor must count as one User each unique User that the Distributor has entitled to have access to the MEMOIR Top feed.

- External Distributors must report each unique individual person who receives access through multiple devices or multiple methods (e.g., a single User has multiple passwords and user identifications) as one User.

- If an External Distributor entitles one or more individuals to use the same device, the Distributor must include only the individuals, and not the device, in the count. Thus, Distributors would not be required to report User device counts associated with a User’s display use of the data feed.

5. **Enterprise Fee.** As an alternative to User fees, a recipient Firm may purchase a

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\(^{12}\) The Exchange notes that while it is not differentiating Professional and Non-Professional Users based on fees (in that it is proposing the same fee for such Users) for this data feed, and thus will not audit Firms based on this distinction, it will request reporting of each distinct category for informational purposes.
monthly Enterprise license to receive MEMOIR Top for distribution to an unlimited number of Professional and Non-Professional Users. The Exchange proposes to establish a fee of $10,000 per month for an Enterprise license to the MEMOIR Top feed.

6. **Digital Media Enterprise Fee.** As an alternative to User fees, a recipient Firm may purchase a monthly Digital Media Enterprise license to receive MEMOIR Top for distribution to an unlimited number of Users for viewing via television, websites, and mobile devices for informational and non-trading purposes only. The Exchange proposes to establish a fee of $2,000 per month for a Digital Media Enterprise license to the MEMOIR Top feed.

**MEMOIR Last Sale**

The MEMOIR Last Sale feed is a MEMX-only market data feed that contains only execution information based on equity orders entered into the System as well as administrative messages. The Exchange proposes to charge each of the fees set forth below for MEMOIR Last Sale.

1. **Internal Distribution Fee.** For the receipt of access to the MEMOIR Last Sale feed, the Exchange proposes to charge $500 per month. This proposed access fee would be charged to any data recipient that receives a data feed of the MEMOIR Last Sale feed for purposes of internal distribution (i.e., an Internal Distributor). The proposed access fee for internal distribution will be charged only once per month per Firm.

2. **External Distribution Fee.** For redistribution of the MEMOIR Last Sale feed, the Exchange proposes to establish an access fee of $2,000 per month. The proposed

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13 See MEMX Rule 13.8(c).
redistribution fee would be charged to any External Distributor of the MEMOIR Last Sale feed. The proposed access fee for external distribution will be charged only once per month per Firm.

3. **Non-Display Use Fees.** The Exchange does not propose to establish separate non-display fees for usage by Trading Platforms or other Users with respect to MEMOIR Last Sale.

4. **User Fees.** The Exchange proposes to charge a Professional User Fee (per User) of $0.01 per month and a Non-Professional User Fee (per User) of $0.01 per month. The proposed User fees would apply to each person that has access to the MEMOIR Last Sale feed that is provided by an External Distributor for displayed usage. The Exchange does not propose any per User fees for internal distribution of the MEMOIR Last Sale feed. Each External Distributor’s count will include every individual that accesses the data regardless of the purpose for which the individual uses the data. External Distributors of the MEMOIR Last Sale feed must report all Professional and Non-Professional Users\(^{14}\) in accordance with the following:

- In connection with an External Distributor’s distribution of the MEMOIR Last Sale feed, the Distributor must count as one User each unique User that the Distributor has entitled to have access to the MEMOIR Last Sale feed.

- External Distributors must report each unique individual person who receives access through multiple devices or multiple methods (e.g., a single User has multiple passwords and user identifications) as one User.

- If an External Distributor entitles one or more individuals to use the same device,

\(^{14}\) See supra note 12.
the Distributor must include only the individuals, and not the device, in the count. Thus, Distributors would not be required to report User device counts associated with a User’s display use of the data feed.

5. **Enterprise Fee.** As an alternative to User fees, a recipient Firm may purchase a monthly Enterprise license to receive MEMOIR Last Sale for distribution to an unlimited number of Professional and Non-Professional Users. The Exchange proposes to establish a fee of $10,000 per month per Firm for an Enterprise license to the MEMOIR Last Sale feed.

6. **Digital Media Enterprise Fee.** As an alternative to User fees, a recipient Firm may purchase a monthly Digital Media Enterprise license to receive MEMOIR Last Sale for distribution to an unlimited number of Users for viewing via television, websites, and mobile devices for informational and non-trading purposes only. The Exchange proposes to establish a fee of $2,000 per month per Firm for a Digital Media Enterprise license to the MEMOIR Last Sale feed.

**Additional Discussion – Competitive Forces**

The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. In Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues, and also recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”\(^\text{15}\) As the Commission itself recognized, the market

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for trading services in NMS stocks has become “more fragmented and competitive.”\textsuperscript{16} Indeed, equity trading is currently dispersed across 16 exchanges,\textsuperscript{17} 31 alternative trading systems,\textsuperscript{18} and numerous broker-dealer internalizers and wholesalers, all competing for order flow. While the competitive environment described above and the Commission’s statements related thereto are primarily regarding market share and trading volumes, and not market data specifically, the Exchange believes that competition does constrain the Exchange’s ability to set market data prices, as described below.

The recent growth of MEMX’s market share demonstrates the competitive marketplace in which the Exchange operates. The Exchange launched in September 2020 and slowly grew over the next several months as it completed its staged rollout intended to ensure market stability. In January 2021, the Exchange averaged approximately 0.6\% of consolidated trading volume.\textsuperscript{19} The Exchange experienced significant growth every month from February 2021 to December 2021 and ended 2021 with market share of approximately 4.2\% of consolidated volume; MEMX has maintained a similar market share percentage in 2022, with approximately 4.05\% market share to date.\textsuperscript{20}


\textsuperscript{19} Market share percentage calculated as of February 1, 2022. The Exchange receives and processes data made available through consolidated data feeds (i.e., CTS and UTDF).

\textsuperscript{20} See id.
As the Exchange’s transaction market share has increased, so has the value of its market data. In addition to achieving over 4% of consolidated volume, the Exchange’s NBBO Quote Market Share (i.e., the notional value displayed at the inside national best bid or offer, or “NBBO”, as a percentage of overall notional value at the NBBO) is comparable to that of Cboe BZX Exchange, Inc. (“BZX”) and the New York Stock Exchange (“NYSE”), and higher than that of Cboe EDGX Exchange, Inc.21 The Exchange determined the level of the fees to charge for the Exchange Data Feeds based on the value of the Exchange’s market data as well as the cost analysis described later in this filing. In particular, as noted elsewhere in this proposal, the proposed fee structure is comparable to that of BZX and the proposed fees themselves are equal to or in many cases lower than BZX. Thus, as the Exchange has similar market quality to BZX and other larger maker/taker exchanges and has priced its data at a significant discount to those markets, the Exchange believes it is starting from a place of general acceptability to industry participants. Indeed, while silence cannot necessarily be interpreted as support, the Exchange notes that no comment letters on the Initial Proposal have been filed.

As noted above, over a 16-month period, MEMX has grown from 0% to over 4% market share of consolidated trading volume. During that same period, the Exchange has had a steady increase in the number of subscribers to Exchange Data Feeds. As a new entrant into the exchange industry, the Exchange is particularly subject to competitive forces as it works to attract new Members and trading volume and maintain participation from existing participants. While the Exchange has been able to rapidly grow its market share since its launch in September 2021, See Cboe Global Markets NBBO Quote Market Share Statistics, available at: https://www.cboe.com/us/equities/market_statistics/. In April 2022, NBBO Quote Market Share of the largest six equities exchanges was as follows: NYSE Arca 18.88%, Nasdaq 17.67%, BZX 11.66%, NYSE 10.43%, MEMX 9.85%, EDGX 8.91%. The remaining ten equities exchanges have NBBO Quote Market Share below 5%. 
2020, MEMX operates only a single U.S. equities exchange with market share that remains significantly lower than the market share of the largest exchange groups. As noted above, until April of this year, MEMX did not charge fees for market data provided by the Exchange. The objective of this approach was to eliminate any fee-based barriers for Members when MEMX launched as a national securities exchange in 2020, which the Exchange believes has been helpful in its ability to attract order flow as a new exchange. The Exchange also did not initially charge for market data because MEMX believes that any exchange should first deliver meaningful value to Members and other market participants before charging fees for its products and services. The Exchange believes that its proposed approach to market data fees is reasonable based on the existence of competition, a comparison to competitors and the cost analysis presented below.

The Exchange is not required to make the Exchange Data Feeds available or to offer any specific pricing alternatives to any customers, nor is any firm required to purchase the Exchange Data Feeds. Firms that choose to subscribe to the Exchange Data Feeds do so for the primary goals of using it to increase their revenues, reduce their expenses, and in some instances to compete directly with the Exchange (including for order flow). Those firms are able to determine for themselves whether or not the Exchange Data Feeds or any other similar products are attractively priced.

Because the Exchange Data Feeds have not been previously subject to fees, the Exchange did not know the impact of the proposed fees on data recipients at the time of the Initial Proposal but expected that subscribers may choose to reduce or eliminate their use of MEMX data. The Exchange now has additional data regarding the impact of fees for Exchange Data Feeds. Specifically, current subscribers to the Exchange Data Feeds have indeed changed their behavior
in response to the imposition of fees as predicted in the Initial Proposal. Following the date that fees for the Exchange Data Feeds were officially announced, fifteen (15) out of seventy-nine (79) subscribers, representing 19% of the subscribers to such data feeds, modified or canceled their subscriptions before the fees went into effect. In each instance, the subscriber told the Exchange that the reason for modifying or cancelling its subscription was the imminent imposition of fees. These modifications and cancellations are evidence that subscribing to the Exchange Data Feeds is discretionary, that each customer makes the decision whether to subscribe based on its own analysis of the benefits and costs to itself, and that customers can and do make those decisions quickly based on reactions to fee changes. Prior to the imposition of fees, four (4) customers (or 5% of market data subscribers) informed the Exchange that if the Exchange imposes the fees as proposed, such customers will limit their subscription the MEMOIR Top feed and/or the MEMOIR Last Sale feed, rather than the MEMOIR Depth feed, which is more expensive under the proposed fees. Notably, three (3) of these customers are active trading participants on the Exchange and have continued to participate on the Exchange without use of the Exchange’s MEMOIR Depth feed. In addition, eleven (11) customers of the Exchange that were subscribed to receive Exchange Data Feeds have cancelled their subscriptions to such data feeds entirely (representing approximately 14% of market data subscribers). Five (5) of the eleven (11) customers that have cancelled all subscriptions to Exchange Data Feeds actively trade on the Exchange and have informed the Exchange that they will rely instead on consolidated data distributed pursuant to NMS Plans (i.e., “SIP data”) to participate on the Exchange. This is clear evidence that the availability of these substitute products constrains the Exchange’s ability to charge supra-competitive prices for the Exchange
The Exchange intentionally adopted fees that it believed were reasonable and would not result in the Exchange losing market share. In fact, despite the modifications and cancellations described above, the Exchange has not lost market share from such market participants. Rather, their participation has remained similar to that on the Exchange prior to the imposition of fees and resulting changes to their market data subscriptions. However, the Exchange continues to believe that a data recipient that chose to discontinue subscribing to the Exchange’s Data Feeds could also choose to shift order flow away from the Exchange and, given the current competitive environment, if data recipients had both discontinued the product and shifted order flow away from the Exchange, the Exchange would have had to reevaluate the fees and file a separate proposed rule change to amend its fees. The Exchange believes that the majority of data subscribers have maintained both their subscriptions to Exchange Data Feeds and their market share on the Exchange due to the overall reasonability of the proposed fees.

Had the proposed fees for the Exchange Data Feeds instead been unreasonable, the Exchange believes it would have seen additional modifications or cancellations to subscriptions to the Exchange Data Feeds and this may have further resulted in a loss of market share. As the Exchange has intentionally avoided imposing unreasonable fees, consistent with its obligations as a registered national securities exchange, the Exchange cannot present statistical evidence to support its understanding of how market participants would have reacted to the imposition of such fees. Indeed, adopting fees that are unreasonable in order to prove that the Exchange’s

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22 The Exchange notes that the remaining customers that modified or cancelled their subscriptions to the Exchange Data Feeds (seven customers total) are not trading participants on the Exchange and likely subscribed to the Exchange Data Feeds initially because they were free but determined to cancel such subscriptions now that the Exchange is charging market data fees.
market data is subject to competitive forces, would contradict the Exchange’s responsibilities under Section 6(b)(4) of the Exchange Act, and would have the paradoxical effect of weakening competition in the market by harming the competitive standing of a new exchange entrant that has actively sought to increase competition among U.S. equities exchanges.

**Additional Discussion – Comparison with Other Exchanges**

The proposed fee structure is not novel but is instead comparable to the fee structure currently in place for the equities exchanges operated by Cboe Global Markets, Inc., in particular BZX. As noted above, in January 2022, MEMX had 4.2% market share; for that same month, BZX had 5.5% market share. The Exchange is proposing fees for its Exchange Data Feeds that are similar in structure to BZX and rates that are equal to, or in most cases lower, than the rates data recipients pay for comparable data feeds from BZX. The Exchange notes that other competitors maintain fees applicable to market data that are considerably higher than those

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25 The Exchange notes that although no fee proposed by the Exchange is higher than the fee charged for BZX for a comparable data product, under certain fact patterns a BZX data recipient could pay a lower rate than that charged by the Exchange. For instance, while the Exchange has proposed to adopt identical fees to those charged for internal distribution of MEMOIR Top as compared to BZX Top ($750 per month) and for internal distribution of MEMOIR Last Sale as compared to BZX Last Sale ($500 per month), BZX permits a data recipient who takes both feeds to pay only one fee and, upon request, to receive the other data feed free of charge. See BZX Fee Schedule, Market Data Fees, BZX Depth, available at: https://www.cboe.com/us/equities/membership/fee_schedule/bzx/. Because the Exchange has not proposed such a discount, a data recipient taking both MEMOIR TOP and MEMOIR Last Sale would pay more ($1,250 per month) than they would to take comparable data feeds from BZX ($750 per month).
proposed by the Exchange, including NYSE Arca and Nasdaq. However, the Exchange has focused its comparison on BZX because it is the closest market in terms of market share and offers market data at prices lower than several other incumbent exchanges.

The fees for the BZX Depth feed—which like the MEMOIR Depth feed, includes top of

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26 Fees for the NYSE Arca Integrated Feed, which is the comparable product to MEMOIR Depth, are $3,000 for access (internal use) and $3,750 for redistribution (external distribution), compared to the Exchange’s proposed fees of $1,500 and $2,500, respectively. In addition, for its Integrated Feed, NYSE Arca charges for three different categories of non-display usage, each of which is $10,500 and each of which can be charged to the same firm more than one time (e.g., a customer operating a Trading Platform would pay $10,500 compared to the Exchange’s proposed fee of $4,000 but would also pay for each Trading Platform, up to three, if they operate more than one, instead of the single fee proposed by the Exchange; if that customer also uses the data for the other categories of non-display usage they would also pay $10,500 for each other category of usage, whereas the Exchange would only charge $1,500 for any non-display usage other than operating a Trading Platform). Finally, the NYSE Arca Integrated Feed user fee for pro devices is $60 compared to the proposed Professional User fee of $30 for MEMOIR Depth and the NYSE Arca Integrated user fee for non-pro devices is $20 compared to the proposed Non-Professional User fee of $3 for MEMOIR Depth. See NYSE Proprietary Market Data Pricing list, available at: https://www.nyse.com/publicdocs/nyse/data/NYSE_Market_Data_Pricing.pdf.

27 Fees for the Nasdaq TotalView data feed, which is the comparable product to MEMOIR Depth, are $1,500 for access (internal use) and $3,750 for redistribution (external distribution), compared to the Exchange’s proposed fees of $1,500 and $2,500, respectively. In addition, for TotalView, Nasdaq charges Trading Platforms $5,000 compared to the Exchange’s proposal of $4,000, and, like NYSE Arca, charges customers per Trading Platform, up to three, if they operate more than one, instead of the single fee proposed by the Exchange. Nasdaq also requires users to report and pay usage fees for non-display access at levels of from $375 per subscriber for smaller firms with 39 or fewer subscribers to $75,000 per firm for a larger firm with over 250 subscribers. The Exchange does not require counting of devices or users for non-display purposes and instead has proposed flat fee of $1,500 for non-display usage not by Trading Platforms. Finally, the Nasdaq TotalView user fee for professional subscribers is $76 compared to the proposed Professional User fee of $30 for MEMOIR Depth and the Nasdaq TotalView user fee for non-professional subscribers is $15 compared to the proposed Non-Professional User fee of $3 for MEMOIR Depth. See Nasdaq Global Data Products pricing list, available at: http://www.nasdaqtrader.com/TraderB.aspx?id=MDDPricingALLN.

28 See supra notes 26 and 27.
book, depth of book, trades, and security status messages—consist of an internal distributor access fee of $1,500 per month (the same as the Exchange’s proposed rate), an external distributor access fee of $5,000 per month (two times the Exchange’s proposed rate), a non-display usage fee for non-Trading Platforms of $2,000 per month ($500 more than the Exchange’s proposed rate), a non-display usage fee for Trading Platforms of $5,000 per month ($1,000 more than the Exchange’s proposed rate), a Professional User fee (per User) of $40 per month ($10 more than the Exchange’s proposed rate), and a Non-Professional User fee (per User) of $5 per month ($2 more than the Exchange’s proposed rate).29

The comparisons of the MEMOIR Last Sale feed and MEMOIR Top feed to the BZX Last Sale feed and BZX Top feed, respectively, are similar in that BZX generally maintains the same fee structure proposed by the Exchange and BZX charges fees that are comparable to, but in most cases higher than, the Exchange’s proposed fees. Notably, the User fees proposed by the Exchange for External Distributors of MEMOIR Last Sale and MEMOIR Top ($0.01 for both Professional Users and Non-Professional Users) are considerably lower than those charged by BZX for BZX Top and BZX Last Sale ($4 for Professional Users and $0.10 for Non-Professional Users).

By charging the same low rate for all Users of MEMOIR Top and MEMOIR Last Sale the Exchange believes it is proposing a structure that is not only lower cost but that will also

29 See BZX Fee Schedule, Market Data Fees, BZX Depth, available at: https://www.cboe.com/us/equities/membership/fee_schedule/bzx/. The Exchange notes that there are differences between the structure of BZX Depth fees and the proposed fees for MEMOIR Depth, including that the Exchange has proposed a Digital Media Enterprise License for MEMOIR Depth but a comparable license is not available from BZX. Additionally, BZX maintains a general enterprise license for User fees, similar to that proposed by the Exchange for MEMOIR Top and MEMOIR Last Sale, but the Exchange has not proposed adding a general Enterprise license at this time.
simplify reporting for subscribers who externally distribute these data feeds to Users, as the Exchange believes that categorization of Users as Professional and Non-Professional is not meaningful for these products and requiring such categorization would expose Firms to unnecessary audit risk of paying more for mis-categorization. However, the Exchange does not believe this is equally true for MEMOIR Depth, as most individual Users of MEMOIR Depth are likely to be Professional Users and the Exchange has proposed pricing for such Users that the Exchange believes is reasonable given the value to Professional Users (i.e., since Professional Users use data to participate in the markets as part of their full-time profession and earn compensation based on their employment). While the Exchange would prefer the simplicity of a single fee, similar to that imposed for Professional Users and Non-Professional Users, as that would reduce audit risk and simplify reporting, the proposed fee for Professional Users if also applied to Non-Professional Users would be significantly higher than other exchanges charge. The Exchange reiterates that it does not anticipate many Non-Professional Users to subscribe to MEMOIR Depth. In fact, though data recipient reporting is still being completed and validated for the first billing cycle, the Exchange is only aware of a single Non-Professional User (i.e., one User) that is reported to receive MEMOIR Depth.

Additional Discussion – Cost Analysis

In general, the Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the Exchange Act requirements that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among members and markets. In particular, the Exchange believes that each exchange should take extra care to be able to demonstrate that these fees are based on its costs and reasonable business needs. Accordingly, in
proposing to charge fees for market data, the Exchange has sought to be especially diligent in assessing those fees in a transparent way against its own aggregate costs of providing the related service, and also carefully and transparently assessing the impact on Members – both generally and in relation to other Members, i.e., to assure the fee will not create a financial burden on any participant and will not have an undue impact in particular on smaller Members and competition among Members in general. The Exchange believes that this level of diligence and transparency is called for by the requirements of Section 19(b)(1) under the Act,\footnote{15 U.S.C. 78s(b)(1).} and Rule 19b-4 thereunder,\footnote{17 CFR 240.19b-4.} with respect to the types of information self-regulatory organizations ("SROs") should provide when filing fee changes, and Section 6(b) of the Act,\footnote{15 U.S.C. 78f(b).} which requires, among other things, that exchange fees be reasonable and equitably allocated,\footnote{15 U.S.C. 78f(b)(4).} not designed to permit unfair discrimination,\footnote{15 U.S.C. 78f(b)(5).} and that they not impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Act.\footnote{15 U.S.C. 78f(b)(8).} This rule change proposal addresses those requirements, and the analysis and data in this section are designed to clearly and comprehensively show how they are met.\footnote{In 2019, Commission staff published guidance suggesting the types of information that SROs may use to demonstrate that their fee filings comply with the standards of the Exchange Act ("Fee Guidance"). While MEMX understands that the Fee Guidance does not create new legal obligations on SROs, the Fee Guidance is consistent with MEMX’s view about the type and level of transparency that exchanges should meet to demonstrate compliance with their existing obligations when they seek to charge new fees. \textit{See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019) available at https://www.sec.gov/tm/staff-guidancesro-rule-filings-fees.}}
In October 2021, MEMX completed a study of its aggregate costs to produce market data and connectivity (the “Cost Analysis”). The Cost Analysis required a detailed analysis of MEMX’s aggregate baseline costs, including a determination and allocation of costs for core services provided by the Exchange – transactions, market data, membership services, physical connectivity, and application sessions (which provide order entry, cancellation and modification functionality, risk functionality, ability to receive drop copies, and other functionality). MEMX separately divided its costs between those costs necessary to deliver each of these core services, including infrastructure, software, human resources (i.e., personnel), and certain general and administrative expenses (“cost drivers”). Next, MEMX adopted an allocation methodology with various principles to guide how much of a particular cost should be allocated to each core service. For instance, fixed costs that are not driven by client activity (e.g., message rates), such as data center costs, were allocated more heavily to the provision of physical connectivity (75%), with smaller allocations to logical ports (2.6%), and the remainder to the provision of transaction execution and market data services (22.4%). In contrast, costs that are driven largely by client activity (e.g., message rates), were not allocated to physical connectivity at all but were allocated primarily to the provision of transaction execution and market data services (90%) with a smaller allocation to application sessions (10%). The allocation methodology was decided through conversations with senior management familiar with each area of the Exchange’s operations. After adopting this allocation methodology, the Exchange then applied an estimated allocation of each cost driver to each core service, resulting in the cost allocations described below.

By allocating segmented costs to each core service, MEMX was able to estimate by core service the potential margin it might earn based on different fee models. The Exchange notes that as a non-listing venue it has four primary sources of revenue that it can potentially use to
fund its operations: transaction fees, fees for connectivity services, membership and regulatory
taxes, and market data fees. Accordingly, the Exchange must cover its expenses from these four
primary sources of revenue.

The Exchange recently filed to adopt fees for connectivity services, to which the
Exchange allocated a monthly aggregate monthly cost of $1,143,715. Based on the pricing
adopted by the Exchange, the Exchange estimated it would generate monthly revenue of
$1,233,750 from connectivity services (i.e., physical connections and application sessions),
providing cost recovery to the Exchange for the aggregate costs of offering connectivity services
plus approximately 8% margin. Thus far, fees for connectivity services have generated revenues
consistent with the Exchange’s estimates.

The Exchange notes that it is difficult, if not impossible, to purely split the costs of
generating and producing market data and the costs associated with operation of the system that
processes (and displays through market data) orders, cancellations, and transactions and
performs related functions (collectively, together with market data, “Transaction Services”).
Instead, as described below, the Exchange believes its costs for providing Transaction Services,
including market data, are inextricably linked, and thus the cost analysis below and corollary
margin discussion includes all Transaction Services.

Through the Exchange’s extensive Cost Analysis, the Exchange analyzed every expense
item in the Exchange’s general expense ledger to determine whether each such expense relates to
the provision of Transaction Services, and, if such expense did so relate, what portion (or

(January 14, 2022) (SR-MEMX-2021-22); 94419 (March 15, 2022), 87 FR 16046 (March
21, 2022) (SR-MEMX-2022-02); 94924 (May 16, 2022) (SR-MEMX-2022-13) (as the
fees adopted have remained the same and the Exchange has filed since January of 2022,
these filings are referred to generally hereafter as the “Connectivity Filing”).
(percentage) of such expense actually supports the provision of Transaction Services, and thus bears a relationship that is, “in nature and closeness,” directly related to Transaction Services. In turn, the Exchange allocated certain costs more to Transaction Services than other services, while certain costs were only allocated to such services at a very low percentage, using consistent allocation methodologies as described above. Based on its analysis, MEMX calculated its aggregate monthly costs for providing Transaction Services, at $2,797,265. The Exchange expects to recoup the majority of this cost from transaction fees and revenues from the public data feeds in which the Exchange participates and receives revenues (i.e., the SIPs). As such, the Exchange has not determined it necessary to charge higher fees for the Exchange Data Feeds than proposed, but instead has proposed what it believes are relatively low-cost options to receive and use Exchange Data Feeds. However, in order to cover operating costs and earn a reasonable profit on its market data the Exchange has determined it necessary to charge some fees for proprietary data, and, as such, the Exchange is proposing to modify its Fee Schedule, pursuant to MEMX Rules 15.1(a) and (c), as set forth above.

**Costs Related to Offering Transaction Services**

The following chart details the individual line-item (monthly) costs considered by MEMX to be related to offering Transaction Services (transactions and market data) to its Members and other customers as well as the percentage of the Exchange’s overall costs such costs represent for such area (e.g., as set forth below, the Exchange allocated approximately 77.8% of its overall Human Resources cost to offering Transaction Services).
**COSTS DRIVERS**

<table>
<thead>
<tr>
<th>Costs Drivers</th>
<th>Costs</th>
<th>% of All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources</td>
<td>$1,480,822</td>
<td>77.8%</td>
</tr>
<tr>
<td>Connectivity (external fees, cabling, switches, etc.)</td>
<td>$48,480</td>
<td>22.4%</td>
</tr>
<tr>
<td>Data Center</td>
<td>$65,538</td>
<td>22.4%</td>
</tr>
<tr>
<td>External Market Data</td>
<td>$133,266</td>
<td>92.5%</td>
</tr>
<tr>
<td>Hardware and Software Licenses and Consulting</td>
<td>$331,722</td>
<td>88.7%</td>
</tr>
<tr>
<td>Monthly Depreciation</td>
<td>$393,830</td>
<td>73.2%</td>
</tr>
<tr>
<td>Allocated Shared Expenses</td>
<td>$343,607</td>
<td>70.6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$2,797,265</td>
<td>70.7%</td>
</tr>
</tbody>
</table>

_Human Resources_

For personnel costs (Human Resources), MEMX calculated an allocation of employee time for employees whose functions include directly providing services necessary to offer Transaction Services, including performance thereof, as well as personnel with ancillary functions related to establishing and providing such services (such as information security and finance personnel). The Exchange notes that it has fewer than seventy (70) employees and each

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38 The Exchange notes that the total monthly cost set forth for Transaction Services ($2,797,265) is the same as that used for the Initial Proposal, however the Exchange has modified the categorization of such fees in the table above as such categorization was inconsistent when compared to the categorization used in the Connectivity Filing. In order to ensure a consistent presentation and description of the Cost Analysis and allocation methodology, the revised chart above corrects these inconsistencies to align with the categorization used in the Connectivity Filing.
department leader has direct knowledge of the time spent by those spent by each employee with respect to the various tasks necessary to operate the Exchange. The estimates of Human Resources cost were therefore determined by consulting with such department leaders, determining which employees are involved in tasks related to providing Transaction Services, and confirming that the proposed allocations were reasonable based on an understanding of the percentage of their time such employees devote to tasks related to providing Transaction Services. The Exchange notes that senior level executives were allocated Human Resources costs to the extent the Exchange believed they are involved in overseeing tasks related to providing Transaction Services. The Human Resources cost was calculated using a blended rate of compensation reflecting salary, equity and bonus compensation, benefits, payroll taxes, and 401(k) matching contributions.

 Connectivity

The Connectivity cost includes external fees paid to connect to other exchanges, cabling and switches required to operate the Exchange. The Exchange notes that it previously labeled this line item as “Infrastructure and Connectivity” but has eliminated the reference to Infrastructure because several other line-item costs could be considered infrastructure given the generality of that term. The Connectivity line-item is more narrowly focused on technology used to complete connections to the Exchange and to connect to external markets. The majority of the Exchange’s Connectivity cost was allocated to physical connectivity (75%), as set forth in the Connectivity Filing. The remainder of the Exchange’s Connectivity cost was allocated between Transaction Services (22.4%) and application sessions (2.6%).

 Data Center

Data Center costs includes an allocation of the costs the Exchange incurs to provide
Transaction Services in the third-party data centers where the Exchange maintains its equipment as well as related costs (the Exchange does not own the Primary Data Center or the Secondary Data Center, but instead, leases space in data centers operated by third parties). Similar to the Connectivity cost described above, the majority of the Exchange’s Data Center cost was allocated to physical connectivity (75%), as set forth in the Connectivity Filing. The remainder of the Exchange’s Data Center cost was allocated between Transaction Services (22.4%) and application sessions (2.6%).

External Market Data

External Market Data Costs includes fees paid to third parties, including other exchanges and the SIPs under the consolidated plans, to receive and consume market data necessary to provide Transaction Services.

Hardware and Software Licenses and Consulting

Hardware and Software Licenses and Consulting includes hardware and software licenses used to operate and monitor physical assets necessary to offer Transaction Services. This line-item also includes the cost of certain third-party consultants used by the Exchange to help test and review systems necessary to offering Transaction Services.\(^{39}\)

Monthly Depreciation

All physical assets and software, which also includes assets used for testing and monitoring of Exchange infrastructure, were valued at cost, depreciated or leased over periods ranging from three to five years. Thus, the depreciation cost primarily relates to servers necessary to operate the Exchange, some of which are owned by the Exchange and some of

\(^{39}\) The Exchange notes that in the Initial Proposal it included technology Consulting costs as a separate line-item but has included such costs along with Hardware and Software Licenses in this proposal for consistency with the Connectivity Filing.
which are leased by the Exchange in order to allow efficient periodic technology refreshes. The
depreciation cost also includes depreciated software that is necessary to run the Exchange. As
noted above, the Exchange allocated 73.2% of all depreciation costs, including both hardware
and software depreciation, to providing Transaction Services.

*Allocated Shared Expenses*

Finally, a limited portion of general shared expenses was allocated to overall Transaction
Services costs as without these general shared costs the Exchange would not be able to operate in
the manner that it does and provide Transaction Services. The costs included in general shared
expenses include general expenses of the Exchange, including office space and office expenses
(e.g., occupancy and overhead expenses), utilities, recruiting and training, marketing and
advertising costs, regulatory costs, professional fees for legal, tax and accounting services
(including external and internal audit expenses), and telecommunications costs. The Exchange
notes that the cost of paying directors to serve on its Board of Directors is included in the
calculation of Allocated Shared Expenses, and thus a portion of such overall cost was allocated
to providing Transaction Services.

*Cost Analysis – Additional Discussion*

In conducting its Cost Analysis, the Exchange did not allocate any of its expenses in full
to any core service and did not double-count any expenses. Instead, as described above, the
Exchange identified and allocated applicable cost drivers across its core services and used the
same Cost Analysis to form the basis of the Connectivity Filing and this filing proposing fees for
Exchange Data Feeds. For instance, as described in the Connectivity Filing, in calculating the

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40 The Exchange notes that in the Initial Proposal it included Regulatory Costs as a separate
line-item but has included such costs in Allocated Shared Expenses in this proposal for
consistency with the Connectivity Filing.
Human Resources expenses to be allocated to physical connections, the Exchange has a team of employees dedicated to network infrastructure and with respect to such employees the Exchange allocated network infrastructure personnel with a high percentage of the cost of such personnel (75%) given their focus on functions necessary to provide physical connections. The salaries of those same personnel were allocated only 2.5% to application sessions and the remaining 22.5% was allocated to transactions and market data.

In total, again as explained in the Connectivity Filing, the Exchange allocated 13.8% of its personnel costs to providing physical connections and 7.7% of its personnel costs to providing application sessions, for a total allocation of 21.5% Human Resources expense to provide connectivity services. In turn, the Exchange allocated the remaining 78.5% of its Human Resources expense to Membership (less than 1%) and the majority to Transaction Services (77.8%). Thus, again, the Exchange’s allocations of cost across core services were based on real costs of operating the Exchange and were not double-counted across the core services or their associated revenue streams.

As another example, the Exchange allocated depreciation expense to all core services, including Transaction Services, but in different amounts. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the Exchange. Without this equipment, the Exchange would not be able to operate the Exchange and provide Transaction Services to its Members and non-Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing Transaction
Services, but instead allocated approximately 73% of the Exchange’s overall depreciation and amortization expense to Transaction Services.

The Exchange anticipates that the proposed fees for Exchange Data Feeds will generate approximately $280,000 based on initial reporting that has taken place since the Exchange commenced billing for such data feeds. The proposed fees for Exchange Data Feeds are designed to permit the Exchange to cover the costs allocated to providing Transaction Services with a markup that the Exchange believes is modest (approximately 10.1%), which the Exchange believes is fair and reasonable after taking into account the costs related to Transaction Services that the Exchange has previously borne completely on its own and help fund future expenditures (increased costs, improvements, etc.). The Exchange also reiterates that prior to April of this year the Exchange has not previously charged any fees for Exchange Data Feeds and its allocation of costs to Exchange Data Feeds was part of a holistic allocation that also allocated costs to other core services without double-counting any expenses.

Looking at the Exchange’s operations holistically, the total monthly costs to the Exchange for offering core services is $3,954,537. The Exchange again notes that it anticipates that the proposed fees for Exchange Data Feeds will generate approximately $280,000 based on initial reporting that has taken place since the Exchange commenced billing for such data feeds. Incorporating this amount into the Exchange’s overall projected revenue, the Exchange anticipates monthly revenue of $4,326,950 from all sources (i.e., connectivity fees and membership fees that were introduced in January 2022, transaction fees, and revenue from market data, both through the fees proposed herein and through the revenue received from the SIPs). As such, applying the Exchange’s holistic Cost Analysis to a holistic view of anticipated revenues, the Exchange would earn approximately 9.4% margin on its operations as a whole. As
noted above, the Exchange believes its profit margin for Transaction Services will be approximately 10.1%. The Exchange believes that both of these amounts are reasonable.

The Exchange notes that its revenue estimates are based on projections across all potential revenue streams and will only be realized to the extent such revenue streams actually produce the revenue estimated. As a new entrant to the hyper-competitive exchange environment, and an exchange focused on driving competition, the Exchange does not yet know whether such expectations will be realized. For instance, in order to generate the revenue expected from the Exchange Data Feeds, the Exchange will have to be successful in retaining existing subscribers and obtaining new subscribers to the Exchange Data Feeds. Similarly, the Exchange will have to be successful in retaining a positive net capture on transaction fees in order to realize the anticipated revenue from transaction pricing.

To the extent the Exchange is successful in gaining market share, improving its net capture on transaction fees, encouraging new subscribers to subscribe to the Exchange Data Feeds, and other developments that would help to increase Exchange revenues, the Exchange does not believe it should be penalized for such success. The Exchange like other exchanges is, after all, a for-profit business. Accordingly, while the Exchange believes in transparency around costs and potential margins, as well as periodic review of revenues and applicable costs (as discussed below), the Exchange does not believe that these estimates should form the sole basis of whether or not a proposed fee is reasonable or can be adopted. Instead, the Exchange believes that the information should be used solely to confirm that an Exchange is not earning supra-competitive profits, and the Exchange believes its Cost Analysis and related projections demonstrate this fact.

The Exchange notes that the Cost Analysis was based on the Exchange’s first year of
operations and projections for the current year. As a general matter, the Exchange believes that its costs will remain relatively similar in future years. It is possible however that such costs will either decrease or increase. To the extent the Exchange sees growth in use of Exchange Data Feeds it will receive additional revenue to offset future cost increases. However, if use of Exchange Data Feeds is static or decreases, the Exchange might not realize the revenue that it anticipates or needs in order to cover applicable costs. Accordingly, the Exchange is committing to conduct a one-year review after implementation of these fees. The Exchange expects that it may propose to adjust fees at that time, to increase fees in the event that revenues fail to cover costs and a reasonable mark-up of such costs. Similarly, the Exchange would propose to decrease fees in the event that revenue materially exceeds current projections. In addition, the Exchange will periodically conduct a review to inform its decision making on whether a fee change is appropriate (e.g., to monitor for costs increasing/decreasing or subscribers increasing/decreasing, etc. in ways that suggest the then-current fees are becoming dislocated from the prior cost-based analysis) and would propose to increase fees in the event that revenues fail to cover its costs and a reasonable mark-up, or decrease fees in the event that revenue or the mark-up materially exceeds current projections. In the event that the Exchange determines to propose a fee change, the results of a timely review, including an updated cost estimate, will be included in the rule filing proposing the fee change. More generally, the Exchange believes that it is appropriate for an exchange to refresh and update information about its relevant costs and revenues in seeking any future changes to fees, and the Exchange commits to do so.

2. **Statutory Basis**

The Exchange believes that the proposed rule change is consistent with the provisions of
Section 6(b)\textsuperscript{41} of the Act in general, and furthers the objectives of Section 6(b)(4)\textsuperscript{42} of the Act, in particular, in that it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities. Additionally, the Exchange believes that the proposed fees are consistent with the objectives of Section 6(b)(5)\textsuperscript{43} of the Act in that they are designed to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to a free and open market and national market system, and, in general, to protect investors and the public interest, and, particularly, are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

**The Proposed Rule Change Is Reasonable**

In adopting Regulation NMS, the Commission granted SROs and broker-dealers increased authority and flexibility to offer new and unique market data to the public. The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Specifically, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues, and also recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”\textsuperscript{44}

With respect to market data, the decision of the United States Court of Appeals for the

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\textsuperscript{41} 15 U.S.C. 78f.


\textsuperscript{43} 15 U.S.C. 78f(b)(5).

\textsuperscript{44} See Regulation NMS Adopting Release, 70 FR 37495, at 37499.
District of Columbia Circuit in NetCoalition v. SEC upheld the Commission’s reliance on the existence of competitive market mechanisms to evaluate the reasonableness and fairness of 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.”

The court agreed with the Commission’s conclusion that “Congress intended that ‘competitive forces should dictate the services and practices that constitute the U.S. national market system for trading equity securities.’”

In this competitive marketplace, the Exchange’s executed trading volume has grown from 0% market share to over 4% market share in less than one and a half years and the Exchange believes that it is reasonable to begin charging fees for the Exchange Data Feeds. One of the primary objectives of MEMX is to provide competition and to reduce fixed costs imposed upon the industry. Consistent with this objective, the Exchange believes that this proposal reflects a simple, competitive, reasonable, and equitable pricing structure designed to permit the Exchange to cover certain fixed costs that it incurs for providing market data, with fees that are discounted when compared to products and services offered by competitors.

The Exchange is not aware of any evidence that a market share of approximately 4%

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46 Id. at 535.
47 See supra notes 26-27; see supra note 29 and accompanying text.
provides the Exchange with supra-competitive pricing power because, as shown elsewhere, market participants (even those that trade on the Exchange) are not required to subscribe to the Exchange Data Feeds, and if they do so, have a choice with respect to the Exchange Data Feed(s) to which they will subscribe. As noted above, when the Exchange announced that it would charge for the Exchange Data Feeds, 19% of its subscribers either modified or cancelled their subscriptions to Exchange Data Feeds. While some of these subscribers do not actively participate by trading on the Exchange and likely subscribed to the Exchange Data Feeds because they were offered free of charge, several of the subscribers that modified or cancelled their subscriptions are in fact Members that trade on the Exchange. Specifically, five (5) subscribers that actively participate on the Exchange have cancelled all subscriptions to the Exchange Data Feeds and have informed the Exchange that they will instead utilize SIP data to trade on the Exchange. In addition, three (3) subscribers that actively participate on the Exchange have discontinued their subscription to receive the MEMOIR Depth feed and have informed the Exchange that they will instead use the less expensive MEMOIR Top feed to trade on the Exchange (the Exchange notes that two of these subscribers have also maintained their subscriptions to the MEMOIR Last Sale feed).

With regard to reasonableness, the Exchange understands that the Commission has traditionally taken a market-based approach to examine whether the SRO making the proposal was subject to significant competitive forces in setting the terms of the proposal. In looking at this question, consistent with the decisions in Susquehanna Int’l Grp., LLC v. SEC and In the Matter of the Application of Securities Industry and Financial Markets Ass’n for Review of

48 866 F.3d 442 (D.C. Cir. 2017).
Action taken by NYSE Arca, Inc. and Nasdaq Stock Market, LLC, the Commission considers whether the SRO has provided evidence in its filing that: (i) there are reasonable substitutes for the product or service; (ii) “platform” competition constrains the ability to set the fee; and/or (iii) revenue and cost analysis shows the fee would not result in the SRO taking supra-competitive profits. If the SRO demonstrates that the fee is subject to significant competitive forces, the Commission will next consider whether there is any substantial countervailing basis to suggest the fee’s terms fail to meet one or more standards under the Exchange Act. If the filing fails to demonstrate that the fee is constrained by competitive forces, the SRO must provide a substantial basis, other than competition, to show that it is consistent with the Exchange Act, which may include production of relevant revenue and cost data pertaining to the product or service.

The Exchange has not previously charged fees for market data but commenced charging in April of this year. As discussed in the purpose section of this proposed rule change, while the Exchange intentionally adopted fees that it believes are reasonable and would not result in a loss of market share, consistent with its obligations as a national securities exchange under Section 6(b)(4) of the Act, the Exchange continues to believe that competitive forces are in effect and that if the proposed fees for the Exchange Data Feeds were unreasonable that the Exchange would lose current or prospective Members and market share. Further, the Exchange has conducted a comprehensive Cost Analysis to determine the reasonability of its proposed fees, including that the Exchange will not take supra-competitive profits.

1. The Proposed Fees Are Constrained by Significant Competitive Forces
   a. Exchange Market Data Fees Are Constrained by Competition

   The Commission itself has recognized that the market for trading services in NMS stocks

has become “more fragmented and competitive.”\textsuperscript{50} The Commission’s Division of Trading and Markets has also recognized that with so many “operating equities exchanges and dozens of ATSs, there is vigorous price competition among the U.S. equity markets and, as a result, [transaction] fees are tailored and frequently modified to attract particular types of order flow, some of which is highly fluid and price sensitive.”\textsuperscript{51} Indeed, as noted above, equity trading is currently dispersed across 16 exchanges, 31 alternative trading systems, and numerous broker-dealer internalizers and wholesalers, all competing for order flow. While the competitive environment described above and the Commission’s statements related thereto are primarily regarding market share and trading volumes, and not market data specifically, the Exchange believes that competition does constrain the Exchange’s ability to set market data prices, as described in this proposal.

Further, low barriers to entry mean that new exchanges like the Exchange may rapidly enter the market and offer competition with the Exchange. Due to the ready availability of substitutes and the low cost to move order flow to those substitute trading venues, an exchange setting market data fees that are not at competitive levels would expect to quickly lose business to competitors with more attractive pricing. Indeed, as described above, at least eight Members trade on the Exchange either by using the lower cost MEMOIR Top feed (some in combination with MEMOIR Last Sale) or without use of any Exchange Data Feed (i.e., using SIP data). Although the various exchanges may differ in their strategies for pricing their market data products and their transaction fees for trades—with some offering low-cost market data with


higher trading costs, and others charging more for market data and comparatively less for
trading—all exchanges compete for the same pool of customers and must work to demonstrate to
such customers that pricing is reasonable. The Exchange believes that the best way to do this is
to provide transparency into the costs of producing and maintaining its services.

Commission staff noted in its Fee Guidance that, as an initial step in assessing the
reasonableness of a fee, staff considers whether the fee is constrained by significant competitive
forces. To determine whether a proposed fee is constrained by significant competitive forces,
staff has said that it considers whether the evidence demonstrates that there are reasonable
substitutes for the product or service that is the subject of a proposed fee. As noted elsewhere in
this proposal, there is no regulatory requirement that any market participant subscribe to any
Exchange Data Feeds or a particular Exchange Data Feed. To demonstrate substitutability with
tangible evidence, as noted above, five (5) Members that actively trade on the Exchange have
determined to the SIPs as a substitute for the Exchange’s Data Feeds but have continued trading
on the Exchange while three (3) Members that actively trade on the Exchange have determined
to use lower cost Exchange Data Feeds (i.e., MEMOIR Top or MEMOIR Top in conjunction
with MEMOIR Last Sale) instead of the MEMOIR Depth feed.

The Exchange believes the proposed fees are reasonable because in setting them, the
Exchange is constrained by the availability of numerous competitors offering market data
products and trading services. Such substitutes need not be identical, but only substantially
similar to the product at hand. More specifically, in setting fees for the Exchange Data Feeds,
the Exchange is constrained by the fact that, if its pricing is unattractive to customers, customers
have their pick of a large number of alternative execution venues to use instead of the Exchange.
The Exchange believes that it has considered all relevant factors and has not considered
irrelevant factors in order to establish reasonable fees. The existence of competition ensures that the Exchange cannot set unreasonable market data fees without suffering the negative effects of that decision in the fiercely competitive market in which it operates.

b. Exchange Data Feeds are Optional Market Data Products

Subscribing to the Exchange Data Feeds is entirely optional. The Exchange is not required to make the Exchange Data Feeds available to any customers, nor is any customer required to purchase any Exchange Data Feed. Unlike some other data products (e.g., the consolidated quotation and last-sale information feeds) that firms are required to purchase in order to fulfill regulatory obligations, a customer’s decision whether to purchase any Exchange Data Feed is entirely discretionary. Most Firms that choose to subscribe to an Exchange Data Feed do so for the primary goals of using it to increase their revenues, reduce their expenses, and in some instances to compete directly with the Exchange for order flow. Such firms are able to determine for themselves whether a particular Exchange Data Feed is necessary for their business needs, and if so, whether or not it is attractively priced. If an Exchange Data Feed does not provide sufficient value to a Firm based on the uses such Firm may have for it, such Firm may simply choose to conduct their business operations in ways that do not use the applicable Exchange Data Feed. Again, the Exchange has demonstrated above that several Members have in fact made this determination and trade on the Exchange without use of Exchange Data Feeds or with use of one or more of the lower cost Exchange Data Feeds and not MEMOIR Depth.

52 The Exchange notes that broker-dealers are not required to purchase proprietary market data to comply with their best execution obligations. See In the Matter of the Application of Securities Industry and Financial Markets Association for Review of Actions Taken by Self-Regulatory Organizations, Release Nos. 34-72182; AP-3-15350; AP-3-15351 (May 16, 2014). Similarly, there is no requirement in Regulation NMS or any other rule that proprietary data be utilized for order routing decisions, and some competing exchanges, broker-dealers and ATSs have chosen not to do so.
Specifically related to the Exchange Data Feed with the highest rates, the MEMOIR Depth Feed, even if a Firm determines that the fees for such feed are too high, customers can access much of the same data at lower rates by subscribing to the MEMOIR Top feed (which includes best-bid-and-offer information for the Exchange on a real-time basis) and MEMOIR Last Sale (which includes last-sale information for the Exchange on a real-time basis). MEMX top-of-book quotation information and last-sale information is also available on the consolidated SIP feeds. In this way, MEMOIR Top, MEMOIR Last Sale, and SIP data products are all substitutes for a significant portion of the data available on the MEMOIR Depth Feed, and SIP data products are also a substitute for a significant portion of data available on the MEMOIR Top and MEMOIR Last Sale feeds. As shown above, several Members that trade on the Exchange discontinued subscriptions to MEMOIR Depth and instead use MEMOIR Top (or MEMOIR Top combined with MEMOIR Last Sale) as a substitute while others discontinued their subscription to Exchange Data Feeds altogether, using SIP data as a substitute. Furthermore, several exchange competitors of the Exchange have not subscribed to any Exchange Data Feeds for purposes of executing orders on their exchanges, order routing, and regulatory purposes, even though the Exchange subscribes to and pays for their comparable market data products.

Broadly speaking, the self-regulatory organizations (“SROs”) administer the SIPs and set pricing. Each SIP charges its own fees, which are determined by the operating committees of each SIP subject to the SEC rule filing process. While MEMX is a member of the operating committee of each SIP, it has only one vote and does not exercise control over SIP pricing. MEMX also notes that the SIPs charge pursuant to a different pricing structure than the pricing structure proposed by the Exchange in this filing.

See, e.g., NYSE Arca Rule 7.37-E.(d), Order Execution and Routing, and BZX Rule 11.21, each of which discloses the data feeds used by each respective exchange and state that SIP products are used with respect to MEMX.

See MEMX Rule 13.4, Usage of Data Feeds, which discloses that the Exchange uses proprietary data feeds for all exchanges that offer them.
such competitors are required by Regulation NMS to honor (i.e., not trade through, lock or cross) protected quotations\(^{56}\) displayed by the Exchange and by rule they offer routing services including routing to the Exchange,\(^{57}\) these competitors must have determined it possible to meet these obligations through use of SIP data in lieu of subscribing to any Exchange Data Feed.

The only content available on the MEMOIR Depth Feed that is not available on these other products is the order-by-order look at the MEMX order book, which provides information about depth-of-book on the Exchange. The Exchange has been a vocal advocate in support of the Commission’s Market Data Infrastructure Rule, which mandates the creation of a “SIP Premium” product that would include depth-of-book information on the consolidated market data feeds.\(^{58}\) The Exchange has also been a vocal advocate in support of pricing new content for the consolidated market data feeds in a reasonable and competitive manner that would encourage the use of a SIP Premium product and other content to be provided via the SIPS.\(^{59}\) Future products such as SIP Premium would include not only integrated depth-of-book information from MEMX, but all other exchanges as well, and would further constrain the Exchange’s ability to price any Exchange Data Feed, including MEMOIR Depth, at a supra-competitive price. However, even in the absence of such products, the Exchange believes that use of the Exchange Data Feeds is entirely optional, as described above.

\(^{56}\) See Rule 600(b)(71) of Regulation NMS, 17 CFR 242.600(b)(17).

\(^{57}\) See NYSE Arca Rule 7.37-E.(b), describing routing services offered by NYSE Arca; BZX Rule 11.13(b), describing routing services offered by BZX.

\(^{58}\) See, e.g., Letter from Anders Franzon, General Counsel, MEMX LLC, dated May 26, 2020, regarding proposed Market Data Infrastructure rule, available at: https://www.sec.gov/comments/s7-03-20/s70320-7235183-217090.pdf.

\(^{59}\) See, e.g., Letter from Adrian Griffiths, Head of Market Structure, MEMX LLC, dated November 8, 2021, regarding proposed fees for consolidated data provided pursuant to CTA/CQ/UTP Plans, available at: https://www.sec.gov/comments/sr-ctacq-2021-03/srctacq202103-9403088-262830.pdf.
Further, in the case of products that are also redistributed through market data vendors such as Bloomberg and Refinitiv, 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 able to refuse to offer proprietary products that their end users do not or will not purchase in sufficient numbers. Even in the absence of fees for the Exchange Data Feeds, many major market data vendors have not elected to make available the Exchange Data Feeds and likely will not unless their customers request it, and customers will not elect to pay the proposed fees unless the applicable Exchange Data Feed can provide value by sufficiently increasing revenues or reducing costs to the customer’s business in a manner that will offset the fees. All of these factors operate as constraints on pricing proprietary data products.

In setting the proposed fees for the Exchange Data Feeds, the Exchange considered the competitiveness of the market for proprietary data and all of the implications of that competition. As described elsewhere in this proposal, the Exchange also considered the Cost Analysis conducted by the Exchange and believes it has demonstrated that the fees will not result in any supra-competitive profit. The Exchange believes that it has considered all relevant factors and has not considered irrelevant factors in order to establish reasonable fees. The existence of alternatives to the Exchange and the continued availability of choice between different Exchange Data Feeds, other exchanges’ proprietary data products, and the SIPs ensure that the Exchange cannot set unreasonable fees 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. The Proposed Fees for Exchange Data Feeds will not result in Supra-competitive Profits

Commission staff previously noted that the generation of supra-competitive profits is one of several potential factors in considering whether an exchange’s proposed fees are consistent with the Act. As described in the Fee Guidance, the term “supra-competitive profits” refers to profits that exceed the profits that can be obtained in a competitive market. The proposed fee structure would not result in excessive pricing or supra-competitive profits for the Exchange. The proposed fee structure is merely designed to permit the Exchange to cover the costs allocated to providing Transaction Services with a modest markup (approximately 10.1%), which the Exchange believes is fair and reasonable after taking into account the costs related to Transaction Services that the Exchange has previously borne completely on its own and to help fund future expenditures (increased costs, improvements, etc.). The Exchange believes that this is fair, reasonable, and equitable. Accordingly, the Exchange believes that its proposal is consistent with Section 6(b)(4) of the Act because the proposed fees will permit recovery of the Exchange’s costs and will not result in excessive pricing or supra-competitive profit.

The proposed fees for Exchange Data Feeds will allow the Exchange to cover certain costs incurred by the Exchange associated with providing and maintaining necessary hardware and other network infrastructure as well as network monitoring and support services; without such hardware, infrastructure, monitoring and support the Exchange would be unable to provide Transaction Services, including market data. The Exchange routinely works to improve the performance of the network’s hardware and software. The costs associated with maintaining and

60 See Fee Guidance, supra note 36.
enhancing a state-of-the-art exchange network is a significant expense for the Exchange, and thus the Exchange believes that it is reasonable and appropriate to help offset those costs by adopting fees for the Exchange Data Feeds. As detailed above, the Exchange has four primary sources of revenue that it can potentially use to fund its operations: transaction fees, fees for connectivity services, membership and regulatory fees, and market data fees. Accordingly, the Exchange must cover its expenses from these four primary sources of revenue.

The Exchange expects to recoup the majority of its estimated aggregate monthly costs for providing Transaction Services from transaction fees and revenues from the public data feeds in which the Exchange participates and receives revenues (i.e., the SIPs). As such, the Exchange has not determined it necessary to charge higher fees for the Exchange Data Feeds than proposed, but instead has proposed what it believes are relatively low-cost options to receive and use Exchange Data Feeds. However, in order to cover operating costs and earn a reasonable profit on its market data the Exchange has determined it necessary to charge some fees for proprietary data, and, as such, the Exchange is proposing to charge the fees described herein for the Exchange Data Feeds. In addition, this revenue will allow the Exchange to continue to offer, to enhance, and to continually refresh its infrastructure as necessary to offer a state-of-the-art trading platform. The Exchange believes that, consistent with the Act, it is appropriate to charge fees that represent a reasonable markup over cost given the other factors discussed above, including the relatively low cost to participate on the Exchange and the need for the Exchange to maintain a highly performant and stable platform to allow Members to transact with

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62 The Exchange notes that while it does impose a $200 per month Membership Fee, the Exchange does not charge several other types of fees charged by competitors to the Exchange, including fees for market participant identifiers (“MPIDs”), fees for risk management tools, application fees, or fees to access the Exchange User portal.
determinism.

The Exchange’s Cost Analysis estimates the costs to provide Transaction Services at $2,797,265. Based on current subscriptions to Exchange Data Feeds (but without definitive data regarding User counts) and projections related to transaction activity and volumes, the Exchange estimates it will generate monthly revenues of approximately $280,000 from the Exchange Data Feeds and $3,080,000 from providing Transaction Services overall (on a monthly basis). This represents a modest profit when compared to the cost of providing Transaction Services (approximately 10.1%). Further, as noted above, applying the Exchange’s holistic Cost Analysis to a holistic view of anticipated revenues from all sources, the Exchange would earn approximately 9.4% margin on its operations as a whole. The Exchange believes that this amount is reasonable and cannot be considered to be supra-competitive profit.

2. The Proposed Fees Are Reasonable

The specific fees that the Exchange proposes for the Exchange Data Feeds are reasonable for the following additional reasons.

Overall. The Exchange believes the proposed fees for the Exchange Data Feeds are reasonable when compared to fees for comparable products, such as the BZX Depth feed, BZX Top feed, and BZX Last Sale feed, compared to which the Exchange’s proposed fees are generally lower, as well as other comparable data feeds priced significantly higher than the Exchange’s proposed fees for the Exchange Data Feeds.\(^63\) Specifically with respect to the MEMOIR Depth feed, the Exchange believes that the proposed fees for such feed are reasonable because they represent not only the value of the data available from the MEMOIR Top and MEMOIR Last Sale data feeds, which have lower proposed fees, but also the value of receiving

\(^{63}\) See supra notes 26–27; see supra note 29 and accompanying text.
the depth-of-book data on an order-by-order basis. The Exchange believes it is reasonable to have pricing based, in part, upon the amount of information contained in each data feed and the value of that information to market participants. The MEMOIR Top and Last Sale data feeds, as described above, can be utilized to trade on the Exchange but contain less information than that is available on the MEMOIR Depth feed (i.e., even for a subscriber who takes both feeds, such feeds do not contain depth-of-book information). Thus, the Exchange believes it reasonable for the products to be priced as proposed, with MEMOIR Last Sale having the lowest price, MEMOIR Top the next lowest price, and MEMOIR Depth the highest price (and more than MEMOIR Last Sale and MEMOIR Top combined). Finally, the Exchange believes that its Cost Analysis and holistic approach thereto demonstrates that the proposed fees for the Exchange Data Feeds would not result in supra-competitive profits.

**Internal Distribution Fees.** The Exchange believes that it is reasonable to charge

Fees to access the Exchange Data Feeds for Internal Distribution because of the value of such data to subscribers in their profit-generating activities. The Exchange also believes that the proposed monthly Internal Distribution fees for MEMOIR Depth, MEMOIR Top, and MEMOIR Last Sale are reasonable as they are the same amounts charged by at least one other exchange of comparable size for comparable data products,\(^64\) and are lower than the fees charged by several other exchanges for comparable data products.\(^65\)

**External Distribution Fees.** The Exchange believes that it is reasonable to charge

\(^64\) See BZX Fee Schedule available at https://www.cboe.com/us/equities/membership/fee_schedule/bzx/.

External Distribution fees for the Exchange Data Feeds because vendors receive value from redistributing the data in their business products provided to their customers. The Exchange believes that charging External Distribution fees is reasonable because the vendors that would be charged such fees profit by re-transmitting the Exchange’s market data to their customers. These fees would be charged only once per month to each vendor account that redistributes any Exchange Data Feed, regardless of the number of customers to which that vendor redistributes the data. The Exchange also believes the proposed monthly External Distribution fee for the MEMOIR Depth Feed is reasonable because it is half the amount of the fee charged by at least one other exchange of comparable size for a comparable data product, and significantly less than the amount charged by several other exchanges for comparable data products. Similarly, the Exchange believes the proposed monthly External Distribution fees for the MEMOIR TOP and MEMOIR Last Sale feeds are reasonable because they are discounted compared to same amounts charged by at least one other exchange of comparable size for comparable data products, and significantly less than the amount charged by several other exchanges for comparable data products.

*User Fees.* The Exchange believes that having separate Professional and Non-Professional User fees for the MEMOIR Depth feed is reasonable because it will make the product more affordable and result in greater availability to Professional and Non-Professional...
Users. Setting a modest Non-Professional User fee is reasonable because it provides an additional method for Non-Professional Users to access the Exchange Data Feeds by providing the same data that is available to Professional Users. The proposed monthly Professional User fee and monthly Non-Professional User fee are reasonable because they are lower than the fees charged by at least one other exchange of comparable size for comparable data products, and significantly less than the amounts charged by several other exchanges for comparable data products. The Exchange also believes it is reasonable to charge the same low per User fee of $0.01 for both Professional Users and Non-Professional Users receiving the MEMOIR Top and MEMOIR Last Sale feeds, as this is not only pricing such data at a much lower cost than other exchanges charge for comparable data feeds but doing so will also simplify reporting for subscribers who externally distribute these data feeds to Users, as the Exchange believes that categorization of Users as Professional and Non-Professional is not meaningful for these products and that requiring such categorization would expose Firms to unnecessary audit risk of paying more for mis-categorization. The Exchange also believes that the proposal to require reporting of individual Users, but not devices, is reasonable as this too will eliminate unnecessary audit risk that can arise when recipients are required to apply complex counting rules such as whether or not to count devices or whether an individual accessing the same data through multiple devices should be counted once or multiple times.


71 See id.
**Non-Display Use Fees.** The Exchange believes the proposed Non-Display Usage fees for the MEMOIR Depth feed are reasonable, because they reflect the value of the data to the data recipients in their profit-generating activities and do not impose the burden of counting non-display devices.

The Exchange believes that the proposed Non-Display Usage fees reflect the significant value of the non-display data use to data recipients, which purchase such data on an entirely voluntary basis. Non-display data can be used by data recipients for a wide variety of profit-generating purposes, including proprietary and agency trading and smart order routing, as well as by data recipients that operate Trading Platforms that compete directly with the Exchange for order flow. The data also can be used for a variety of non-trading purposes that indirectly support trading, such as risk management and compliance. Although some of these non-trading uses do not directly generate revenues, they can nonetheless substantially reduce a 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 benefiting recipients. The Exchange believes that charging for non-trading uses is reasonable because data recipients can derive substantial value from such uses, for example, by automating tasks so that can be performed more quickly and accurately and less expensively than if they were performed manually.

Previously, the non-display use data pricing policies of many exchanges required customers to count, and the exchanges to audit the count of, the number of non-display devices used by a customer. As non-display use grew more prevalent and varied, however, exchanges received an increasing number of complaints about the impracticality and administrative burden associated with that approach. In response, several exchanges developed a non-display use pricing structure that does not require non-display devices to be counted or those counts to be
audited, and instead categorizes different types of use. The Exchange proposes to distinguish between non-display use for the operation of a Trading Platform and other non-display use, which is similar to exchanges such as BZX and EDGX,\textsuperscript{72} while other exchanges maintain additional categories and in many cases charge multiple times for different types of non-display use or the operation of multiple Trading Platforms.\textsuperscript{73}

The Exchange believes that it is reasonable to segment the fee for non-display use into these two categories. As noted above, the uses to which customers can put the MEMOIR Depth feed are numerous and varied, and the Exchange believes that charging separate fees for these separate categories of use is reasonable because it reflects the actual value the customer derives from the data, based upon how the customer makes use of the data.

The Exchange believes that the proposed fees for non-display use other than operation of a Trading Platform is reasonable. These fees are comparable to, and lower than, the fees charged by at least one other exchange of comparable size for a comparable data product,\textsuperscript{74} and significantly less than the amounts charged by several other exchanges for comparable data products.\textsuperscript{75} The Exchange believes that the proposed fees directly and appropriately reflect the significant value of using data on a non-display basis in a wide range of computer-automated functions relating to both trading and non-trading activities and that the number and range of

\begin{footnotesize}
\textsuperscript{73} See supra notes 26-27.
\textsuperscript{74} See BZX Fee Schedule, available at: \url{https://www.cboe.com/us/equities/membership/fee_schedule/bzx/}.
\end{footnotesize}
these functions continue to grow through innovation and technology developments. Further, in contrast to non-display use for operation of a Trading Platform, discussed below, the Exchange benefits from and wants to encourage other non-display use by market participants (including the fact that the Exchange receives orders resulting from algorithms and routers as well as more broadly beneficial uses such as risk management and compliance).

The Exchange also believes, regarding non-display use for operation of a Trading Platform, it is reasonable to charge a higher monthly fee than for other non-display use because such use of the Exchange’s data is directly in competition with the Exchange and the Exchange should be permitted to recoup some of its lost trading revenue by charging for the data that makes such competition possible. The Exchange also believes that it is reasonable to charge the proposed fees for non-display use for operation of a Trading Platform because the proposed fees are comparable to, and lower than, the fees charged at least one other exchange of comparable size for a comparable data product,76 and significantly less than the amounts charged by several other exchanges for comparable data products, which also charge per Trading Platform operated by a data subscriber subject to a cap in most cases, rather than charging per Firm, as proposed by the Exchange.77

The proposed Non-Display Usage fees for the Exchange Data Feeds are also reasonable because they take into account the extra value of receiving the data for Non-Display Usage that includes a rich set of information including top of book quotations, depth-of-book quotations, executions and other information. The Exchange believes that the proposed fees directly and appropriately reflect the significant value of using the MEMOIR Depth feed on a non-display

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77 See supra notes 26-27.
basis 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.\footnote{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.”)}

For all of the foregoing reasons, the Exchange believes that the proposed fees for the Exchange Data Feeds are reasonable.

**The Proposed Fees Are Equitably Allocated**

The Exchange believes the proposed fees for the Exchange Data Feeds are allocated fairly and equitably among the various categories of users of the feeds, and any differences among categories of users are justified and appropriate.

**Overall.** The Exchange believes that the proposed fees are equitably allocated because they will apply uniformly to all data recipients that choose to subscribe to the Exchange Data Feeds. Any subscriber or vendor that chooses to subscribe to one or more Exchange Data Feeds is subject to the same Fee Schedule, regardless of what type of business they operate, and the decision to subscribe to one or more Exchange Data Feeds is based on objective differences in usage of Exchange Data Feeds among different Firms, which are still ultimately in the control of any particular Firm. The Exchange believes the proposed pricing between Exchange Data Feeds is equitably allocated because it is based, in part, upon the amount of information contained in each data feed and the value of that information to market participants. The MEMOIR Top and
Last Sale data feeds, as described above, can be utilized to trade on the Exchange but contain less information than that is available on the MEMOIR Depth feed (i.e., even for a subscriber who takes both feeds, such feeds do not contain depth-of-book information). Thus, the Exchange believes it is an equitable allocation of fees for the products to be priced as proposed, with MEMOIR Last Sale having the lowest price, MEMOIR Top the next lowest price, and MEMOIR Depth the highest price (and more than MEMOIR Last Sale and MEMOIR Top combined).

**Internal Distribution Fee.** The Exchange believes the proposed monthly fees for Internal Distribution of the Exchange Data Feeds are equitably allocated because they would be charged on an equal basis to all data recipients that receive the Exchange Data Feeds for internal distribution, regardless of what type of business they operate.

**External Distribution Fees.** The Exchange believes the proposed monthly fees for External Distribution of the Exchange Data Feeds are equitably allocated because they would be charged on an equal basis to all data recipients that receive the Exchange Data Feeds that choose to redistribute the feeds externally. The Exchange also believes that the proposed monthly fees for External Distribution are equitably allocated when compared to lower proposed fees for Internal Distribution because data recipients that are externally distributing Exchange Data Feeds are able to monetize such distribution and spread such costs amongst multiple third party data recipients, whereas the Internal Distribution fee is applicable to use by a single data recipient (and its affiliates).

**User Fees.** The Exchange believes that the fee structure differentiating Professional User fees from Non-Professional User fees for display use of the MEMOIR Depth feed is equitable. This structure has long been used by other exchanges and the SIPs to reduce the price of data to
Non-Professional Users and make it more broadly available.\(^7\) Offering the MEMOIR Depth feed to Non-Professional Users at a lower cost than Professional Users results in greater equity among data recipients, as Professional Users are categorized as such based on their employment and participation in financial markets, and thus, are compensated to participate in the markets. While Non-Professional Users too can receive significant financial benefits through their participation in the markets, the Exchange believes it is reasonable to charge more to those Users who are more directly engaged in the markets. The Exchange also believes it may be unreasonable to charge a Non-Professional User the same fee that it has proposed for Professional Users, as this fee would be higher than any other U.S. equities exchange charges to Non-Professional Users for receipt of a comparable data product. These User fees would be charged uniformly to all individuals that have access to the MEMOIR Depth feed based on the category of User. The Exchange also believes the proposed User fees for MEMOIR Top and MEMOIR Last Sale are equitable because the Exchange has proposed to charge Professional Users and Non-Professional Users the same low rate of $0.01 per month.

\textit{Non-Display Use Fees}. The Exchange believes the proposed Non-Display Usage fees are equitably allocated because they would require subscribers to pay fees only for the uses they actually make of the data. As noted above, non-display data can be used by data recipients for a wide variety of profit-generating purposes (including trading and order routing) as well as purposes that do not directly generate revenues (such as risk management and compliance) but nonetheless substantially reduce the recipient’s costs by automating certain functions. The

Exchange believes that it is equitable to charge non-display data subscribers that use data for purposes other than operation of a Trading Platform as proposed because all such subscribers would have the ability to use such data for as many non-display uses as they wish for one low fee. As noted above, this structure is comparable to that in place for the BZX Depth feed but several other exchanges charge multiple non-display fees to the same client to the extent they use a data feed in several different trading platforms or for several types of non-display use.  

The Exchange also believes, regarding non-display use for operation of a Trading Platform, it is equitable to charge a higher rate for each Firm operating a Trading Platform (as compared to other Non-Display Usage not by Trading Platforms) because such use of the data is directly in competition with the Exchange and the Exchange should be permitted to recoup some of its lost trading revenue by charging for the data that makes such competition possible. Further, in contrast to non-display use for operation of a Trading Platform, the Exchange benefits from and wants to encourage other non-display use by market participants (including the fact that the Exchange receives orders resulting from algorithms and routers as well as more broadly beneficial uses such as risk management and compliance). The Exchange believes that it is equitable to charge a single fee per Firm rather than multiple fees for a Firm that operates more than one Trading Platform because operators of Trading Platforms are many times viewed as a single competing venue or group, even if there a multiple liquidity pools operated by the same competitor.

For all of the foregoing reasons, the Exchange believes that the proposed fees for the Exchange Data Feeds are equitably allocated.

The Proposed Fees Are Not Unfairly Discriminatory

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80 See supra, notes 26-27.
The Exchange believes the proposed fees for the Exchange Data Feeds are not unfairly discriminatory because any differences in the application of the fees are based on meaningful distinctions between customers, and those meaningful distinctions are not unfairly discriminatory between customers.

*Overall.* The Exchange believes that the proposed fees are not unfairly discriminatory because they would apply to all data recipients that choose to subscribe to the same Exchange Data Feed(s). Any vendor or subscriber that chooses to subscribe to the Exchange Data Feeds is subject to the same Fee Schedule, regardless of what type of business they operate. Because the proposed fees for MEMOIR Depth are higher, vendors and subscribers seeking lower cost options may instead choose to receive data from the SIPS or through the MEMOIR Top and/or MEMOIR Last Sale feed for a lower cost. Alternatively, vendors and subscribers can choose to pay for the MEMOIR Depth feed in order to receive data in a single feed with depth-of-book information if such information is valuable to such vendors or subscribers. The Exchange notes that vendors or subscribers can also choose to subscribe to a combination of data feeds for redundancy purposes or to use different feeds for different purposes. In sum, each vendor or subscriber has the ability to choose the best business solution for itself. The Exchange does not believe it is unfairly discriminatory to base pricing upon the amount of information contained in each data feed and the value of that information to market participants. As described above, the MEMOIR Top and Last Sale data feeds, can be utilized to trade on the Exchange but contain less information than that is available on the MEMOIR Depth feed (i.e., even for a subscriber who takes both feeds, such feeds do not contain depth-of-book information). Thus, the Exchange believes it is not unfairly discriminatory for the products to be priced as proposed, with MEMOIR Last Sale having the lowest price, MEMOIR Top the next lowest price, and MEMOIR
Depth the highest price (and more than MEMOIR Last Sale and MEMOIR Top combined).

**Internal Distribution Fees.** The Exchange believes the proposed monthly fees for Internal Distribution of the Exchange Data Feeds are not unfairly discriminatory because they would be charged on an equal basis to all data recipients that receive the same Exchange Data Feed(s) for internal distribution, regardless of what type of business they operate.

**External Distribution Fees.** The Exchange believes the proposed monthly fees for redistributing the Exchange Data Feeds are not unfairly discriminatory because they would be charged on an equal basis to all data recipients that receive the same Exchange Data Feed(s) that choose to redistribute the feed(s) externally. The Exchange also believes that having higher monthly fees for External Distribution than Internal Distribution is not unfairly discriminatory because data recipients that are externally distributing Exchange Data Feeds are able to monetize such distribution and spread such costs amongst multiple third party data recipients, whereas the Internal Distribution fee is applicable to use by a single data recipient (and its affiliates).

**User Fees.** The Exchange believes that the fee structure differentiating Professional User fees from Non-Professional User fees for display use of the MEMOIR Depth feed is not unfairly discriminatory. This structure has long been used by other exchanges and the SIPs to reduce the price of data to Non-Professional Users and make it more broadly available.\(^{81}\) Offering the Exchange Data Feeds to Non-Professional Users with the same data as is available to Professional Users results in greater equity among data recipients. These User fees would be charged uniformly to all individuals that have access to the Exchange Data Feeds based on the category of User. The Exchange also believes the proposed User fees for MEMOIR Top and MEMOIR Last Sale are not unfairly discriminatory because the Exchange has proposed to

\(^{81}\) See *supra* note 79.
charge Professional Users and Non-Professional Users the same low rate of $0.01 per month.

*Non-Display Use Fees.* The Exchange believes the proposed Non-Display Usage fees for the MEMOIR Depth feed are not unfairly discriminatory because they would require subscribers for non-display use to pay fees depending on their use of the data, either for operation of a Trading Platform or not, but would not impose multiple fees to the extent a Firm operates multiple Trading Platforms or has multiple different types of non-display use. As noted above, non-display data can be used by data recipients for a wide variety of profit-generating purposes as well as purposes that do not directly generate revenues but nonetheless substantially reduce the recipient’s costs by automating certain functions. This segmented fee structure is not unfairly discriminatory because no subscriber of non-display data would be charged a fee for a category of use in which it did not actually engage.

The Exchange also believes that, regarding non-display use for operation of a Trading Platform, it is not unreasonably discriminatory to charge a higher fee for each Firm operating a Trading Platform (as compared to other Non-Display Usage not by Trading Platforms) because such use of the data is directly in competition with the Exchange and the Exchange should be permitted to recoup some of its lost trading revenue by charging for the data that makes such competition possible. The Exchange believes that it is not unreasonably discriminatory to charge a single fee for an operator of Trading Platforms that operates more than one Trading Platform because operators of Trading Platforms are many times viewed as a single competing venue or group, even if there a multiple liquidity pools operated by the same competitor. The Exchange again notes that certain competitors to the Exchange charge for non-display usage per Trading Platform, in contrast to the Exchange’s proposal. In turn, to the extent they subscribe to

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82 *See supra* notes 26-27.
Exchange Data Feeds, these same competitors will benefit from the Exchange’s pricing model to the extent they operate multiple Trading Platforms (as most do) by paying a single fee rather than paying for each Trading Platform that they operate that consumes Exchange Data Feeds.

For all of the foregoing reasons, the Exchange believes that the proposed fees for the Exchange Data Feeds are not unfairly discriminatory.

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

In accordance with Section 6(b)(8) of the Act, the Exchange does not believe that the proposed rule change would impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

*Intra-Market Competition*

The Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. Since the pricing for the Exchange Data Feeds was announced by the Exchange, the Exchange has received no official complaints from Members, non-Members, or third-parties that redistribute the Exchange Data Feeds, that the Exchange’s fees or the proposed fees for Exchange Data Feeds would negatively impact their abilities to compete with other market participants or that they are placed at a disadvantage relative to others. The Exchange does not believe that the proposed fees for Exchange Data Feeds place certain market participants at a relative disadvantage to other market participants because, as noted above, the proposed fees are associated with usage of Exchange Data Feeds by each market participant based on the type of business they operate, and the decision to subscribe to one or more Exchange Data Feeds is based on objective differences in usage of Exchange

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Data Feeds among different Firms, which are still ultimately in the control of any particular Firm, and such fees do not impose a barrier to entry to smaller participants. Accordingly, the proposed fees for Exchange Data Feeds do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the allocation of the proposed fees reflects the types of Exchange Data Feeds consumed by various market participants and their usage thereof.

As noted above, the current subscribers to the Exchange Data Feeds began changing their behavior in response to the imposition of fees as predicted in the Initial Proposal and as described herein. Following the date that fees for the Exchange Data Feeds were officially announced, fifteen (15) out of seventy-nine (79) subscribers, representing 19% of the subscribers to such data feeds, modified or canceled their subscriptions before the fees went into effect. In each instance, the subscriber told the Exchange that the reason for modifying or cancelling its subscription was the imminent imposition of fees. These modifications and cancellations are evidence that subscribing to the Exchange Data Feeds is discretionary, that each customer makes the decision whether to subscribe based on its own analysis of the benefits and costs to itself, and that customers can and do make those decisions quickly based on reactions to fee changes. Prior to the imposition of fees, four (4) customers (or 5% of market data subscribers) informed the Exchange that if the Exchange imposes the fees as proposed, such customers will limit their subscription the MEMOIR Top feed and/or the MEMOIR Last Sale feed, rather than the MEMOIR Depth feed, which is more expensive under the proposed fees. Notably, three (3) of these customers are active trading participants on the Exchange and have continued to participate on the Exchange without use of the Exchange’s MEMOIR Depth feed. In addition, eleven (11) customers of the Exchange that were subscribed to receive Exchange Data Feeds have cancelled
their subscriptions to such data feeds entirely (representing approximately 14% of market data subscribers). Five (5) of the eleven (11) customers that have cancelled all subscriptions to Exchange Data Feeds actively trade on the Exchange and have informed the Exchange that they will rely instead on SIP data to participate on the Exchange. This is clear evidence that the availability of these substitute products constrains the Exchange’s ability to charge supra-competitive prices for the Exchange Data Feeds. The Exchange notes that the remaining customers that modified or cancelled their subscriptions to the Exchange Data Feeds (seven customers total) are not trading participants on the Exchange and likely subscribed to the Exchange Data Feeds initially because they were free but determined to cancel such subscriptions now that the Exchange is charging market data fees.

Inter-Market Competition

The Exchange does not believe the proposed fees place an undue burden on competition on other SROs that is not necessary or appropriate. In particular, market participants are not forced to subscribe to any of the Exchange Data Feeds, as described above. Additionally, other exchanges have similar market data fees in place for their participants, but with higher rates to connect. The Exchange is also unaware of any assertion that the proposed fees for Exchange Data Feeds would somehow unduly impair its competition with other exchanges.

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

The Exchange neither solicited nor received comments on the proposed rule change.

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

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the

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84 See supra notes 26-27; see supra note 29 and accompanying text.
Act\textsuperscript{85} and Rule 19b-4(f)(2)\textsuperscript{86} thereunder.

At any time within 60 days of the filing of the 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 to determine whether the proposed rule change should be approved or disapproved.

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-MEMX-2022-14 on the subject line.

**Paper comments:**

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

All submissions should refer to File Number SR-MEMX-2022-14. 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


\textsuperscript{86} 17 CFR 240.19b-4(f)(2).
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, D.C. 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-MEMX-2022-14 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.87

J. Matthew DeLesDernier,
Assistant Secretary.