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SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
Form 19b-4

File No. \* SR 2024 - \* 006

Amendment No. (req. for Amendments \*)

Filing by NASDAQ BX, Inc.

Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial * <input checked="" type="checkbox"/>	Amendment * <input type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input type="checkbox"/>	Section 19(b)(3)(A) * <input checked="" type="checkbox"/>	Section 19(b)(3)(B) * <input type="checkbox"/>
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Pilot <input type="checkbox"/>	Extension of Time Period for Commission Action * <input type="checkbox"/>	Date Expires * <input type="text"/>
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Rule

<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)
<input type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)
<input type="checkbox"/> 19b-4(f)(3)	<input checked="" type="checkbox"/> 19b-4(f)(6)

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010  
Section 806(e)(1) \*

Section 806(e)(2) \*

Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934  
Section 3C(b)(2) \*

Exhibit 2 Sent As Paper Document

Exhibit 3 Sent As Paper Document

### Description

Provide a brief description of the action (limit 250 characters, required when Initial is checked \*).

Adopt an OTTO Protocol

### Contact Information

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name \* Angela Last Name \* Dunn

Title \* Principal Associate General Counsel

E-mail \* Angela.dunn@nasdaq.com

Telephone \* (215) 496-5692 Fax

### Signature

Pursuant to the requirements of the Securities Exchange of 1934, NASDAQ BX, Inc. has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

Date 02/15/2024

(Title \*)

By John Zecca

EVP and Chief Legal Officer

(Name \*)

NOTE: Clicking the signature block at right will initiate digitally signing the form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

 Date: 2024.02.15 11:06:41 -05'00'

Required fields are shown with yellow backgrounds and astericks.

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EDFS website.

**Form 19b-4 Information \***

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SR-BX-2024-006 19b4.doc

The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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SR-BX-2024-006 Exhibit 1.doc

The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A - Notice of Proposed Rule Change, Security-Based Swap Submission, or Advanced Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2- Notices, Written Comments, Transcripts, Other Communications**

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Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

Exhibit Sent As Paper Document

**Exhibit 3 - Form, Report, or Questionnaire**

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Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

Exhibit Sent As Paper Document

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

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SR-BX-2024-006 Exhibit 5.doc

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. Text of the Proposed Rule Change

(a) Nasdaq BX, Inc. (“BX” or “Exchange”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> is filing with the Securities and Exchange Commission (“SEC” or “Commission”) a proposal to adopt a new protocol, “Ouch to Trade Options” or “OTTO” and establish pricing for this new protocol.

A notice of the proposed rule change for publication in the Federal Register is attached as Exhibit 1. The text of the proposed rule change is attached as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by senior management of the Exchange pursuant to authority delegated by the Board of Directors (the “Board”). Exchange staff will advise the Board of any action taken pursuant to delegated authority. No other action is necessary for the filing of the rule change.

Questions and comments on the proposed rule change may be directed to:

Angela Saccomandi Dunn  
Principal Associate General Counsel  
Nasdaq, Inc.  
(215) 496-5692

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

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

a. Purpose

BX proposes to offer a new order entry protocol called OTTO. Today, BX Participants may enter orders into the Exchange through the “Financial Information eXchange” or “FIX.”<sup>3</sup> The proposed new OTTO protocol is identical to the OTTO protocol offered today on 3 Nasdaq affiliated exchanges, Nasdaq ISE, LLC (“ISE”), Nasdaq GEMX, LLC (“GEMX”) and Nasdaq MRX, LLC (“MRX”).

The OTTO protocol is a proprietary protocol of Nasdaq, Inc. The Exchange continues to innovate and modernize technology so that it may continue to compete among options markets. The ability to continue to innovate with technology and offer new products to market participants allows BX to remain competitive in the options space which currently has seventeen options markets and potential new entrants.

**OTTO Protocol**

As proposed, OTTO would allow Participants and their Sponsored Customers<sup>4</sup> to connect, send, and receive messages related to orders, auction orders, and auction responses to the Exchange. OTTO features would include the following: (1) options

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<sup>3</sup> FIX is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders and auction orders and responses to and from the Exchange. Features include the following: (1) execution messages; (2) order messages; and (3) risk protection triggers and cancel notifications. In addition, a BX Participant may elect to utilize FIX to send a message and PRISM Order, as defined within Options 3, Section 13, to all BX Participants that opt in to receive Requests for PRISM requesting that it submit the sender’s PRISM Order with responder’s Initiating Order, as defined within Options 3, Section 13, into the Price Improvement Auction (“PRISM”) mechanism, pursuant to Options 3, Section 13 (“Request for PRISM”). See Options 3, Section 7(e)(1)(A).

<sup>4</sup> General 2, Section 22 describes Sponsored Access arrangements.

symbol directory messages (e.g., underlying and complex instruments); (2) System<sup>5</sup> event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; (6) risk protection triggers and cancel notifications; (7) auction notifications; (8) auction responses; and (9) post trade allocation messages. The Exchange notes that unlike FIX, which offers routing capability, OTTO does not permit routing. The Exchange proposes to include this description of OTTO in new Options 3, Section 7(e)(1)(B) and re-letter current “B” as “C”.

Only one order protocol is required for a BX Participant to submit orders into BX. Only BX Participants may utilize ports on BX. Any market participant that sends orders to a BX Participant would not need to utilize a port. The BX Participant may send all orders, proprietary and agency, through one port to BX. Participants may elect to obtain multiple ports to organize their business,<sup>6</sup> however only one port is necessary for a Participant to enter orders on BX.

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<sup>5</sup> The term “System” or “Trading System” means the automated system for order execution and trade reporting owned and operated by BX as the BX Options market. The BX Options market comprises: (A) an order execution service that enables Participants to automatically execute transactions in option series; and provides Participants with sufficient monitoring and updating capability to participate in an automated execution environment; (B) a trade reporting service that submits “locked-in” trades for clearing to a registered clearing agency for clearance and settlement; transmits last-sale reports of transactions automatically to the Options Price Reporting Authority for dissemination to the public and industry; and provides participants with monitoring and risk management capabilities to facilitate participation in a “locked-in” trading environment; and (C) the data feeds described in Options 3, Section 23. See BX Options 1, Section 1(a)(59).

<sup>6</sup> For example, a Participant may desire to utilize multiple FIX or OTTO Ports for accounting purposes, to measure performance, for regulatory reasons, segregating order flow among different trading desks, or other determinations that are specific to that Participant. A market participant may utilize multiple ports in some cases to send multiple orders through different ports to avoid any latency or queuing of orders. The Exchange notes that to the extent that different OTTO Ports are used to send multiple orders as compared to sending multiple orders through one OTTO Port the difference from a latency standpoint would be in nanoseconds.

Participants may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. Participants may prefer one protocol as compared to another protocol, for example, the ability to route may cause a Participant to utilize FIX and a Participant that desires to execute an order locally may prefer OTTO. Also, the OTTO Port offers lower latency as compared to the FIX Port, which may be attractive to Participants depending on their trading behavior. Nasdaq believes that the addition of OTTO will provide BX Participants with additional choice when submitting orders to BX.

While the Exchange has no way of predicting with certainty the amount or type of OTTO Ports market participants will in fact purchase, the Exchange anticipates that some Participants will subscribe to multiple OTTO Ports in combination with FIX Ports. The Exchange notes that Options Participants may use varying number of OTTO ports based on their business needs.

### **Other Amendments**

In connection with offering OTTO, the Exchange proposes to amend other rules within Options 3. Each amendment is described below.

#### *Options 3, Section 7*

BX proposes to amend Options 3, Section 7, Types of Orders and Quote Protocols. Specifically, BX proposes to amend Options 3, Section 7 (b)(2) that describes the Immediate-or-Cancel” or “IOC” order. Today, Options 3, Section 7(b)(2)(B) notes that an IOC order may be entered through FIX or SQF, provided that an IOC Order entered by a Market Maker through SQF is not subject to the Order Price Protection, the Market Order Spread Protection, or Size Limitation in Options 3, Section 15(a)(1), (a)(2),

and (b)(2), respectively. The Exchange proposes to add “OTTO” to the list of protocols to note that an IOC order may also be entered through OTTO.

BX also proposes to amend the “DAY” order in Options 3, Section 7(b)(3) that currently provides that a Day order may be entered through FIX. With the addition of OTTO, a Day order may also be entered through OTTO.

BX also proposes to amend the “Good Til Cancelled” or “GTC” order which currently does not specify that a GTC order may be entered through FIX. GTC orders would only be able to be entered through FIX and not OTTO. The Exchange proposes to amend Options 3, Section 7(b)(4) to add a sentence to note that GTC orders may be entered through FIX.

*Options 3, Section 8*

BX proposes to amend Options 3, Section 8, Options Opening Process. BX proposes to amend Options 3, Section 8(l) that describes the Opening Process Cancel Timer. The Opening Process Cancel Timer represents a period of time since the underlying market has opened. If an option series has not opened before the conclusion of the Opening Process Cancel Timer, a Participant may elect to have orders returned by providing written notification to the Exchange. Today, these orders include all non-Good Til Cancelled Orders received over the FIX protocol. The Exchange proposes to add the OTTO protocol as well to the rule text language in that paragraph.

*Options 3, Section 12*

The Exchange proposes to amend the Options 3, Section 12, Crossing Orders. Specifically, the Exchange proposes to amend Customer Crossing Orders in Options 3, Section 12(a) that currently provides Public Customer-to-Public Customer Cross Orders

are automatically executed upon entry provided that the execution is at or between the best bid and offer on the Exchange and (i) is not at the same price as a Public Customer Order on the Exchange's limit order book and (ii) will not trade through the NBBO. Public Customer-to-Public Customer Cross Orders must be entered through FIX. The Exchange proposes to remove the sentence that provides that Public Customer-to-Public Customer Cross Orders must be entered through FIX because they will be able to be entered through both FIX and OTTO.

*Options 3, Section 17*

The Exchange proposes to amend the Kill Switch at Options 3, Section 17. The Kill Switch provides Participants with an optional risk management tool to promptly cancel and restrict orders. With the introduction of OTTO, the Exchange proposes to align its Kill Switch rule text with MRX's Kill Switch.<sup>7</sup> The Exchange proposes to note in Options 3, Section 17(a) that BX Participants may initiate a message(s) to the System to promptly cancel and restrict their order activity on the Exchange, as is the case today, as described in section (a)(1). This amendment simply rewords the rule text without a substantive amendment to the rule text.

The Exchange proposes to renumber Options 3, Section 17(a)(i) and (ii) as (a)(1) and (2). Current Options 3, Section 17(a)(i) states, "If orders are cancelled by the BX Participant utilizing the Kill Switch, it will result in the cancellation of all orders requested for the Identifier(s). The BX Participant will be unable to enter additional orders for the affected Identifier(s) until re-entry has been enabled pursuant to section (a)(ii)." The Exchange proposes to instead provide, "A BX Participant may submit a

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<sup>7</sup> See MRX Options 3, Section 17.

request to the System through FIX or OTTO to cancel all existing orders and restrict entry of additional orders for the requested Identifier(s) on a user level on the Exchange.” With the addition of OTTO, the Exchange notes that both FIX and OTTO orders may be cancelled. Further, today, BX Participants utilize an interface to send a message to the Exchange to initiate a Kill Switch.<sup>8</sup> The Exchange notes that in lieu of the interface, BX Participants will only be able to initiate a cancellation of their orders by sending a mass purge request through FIX or OTTO. This change will align the Kill Switch functionality to that of ISE, GEMX and MRX Options 3, Section 17 and will enable BX Participants to initiate the Kill Switch more seamlessly without the need to utilize a separate interface. When initiating a cancellation of their orders by sending a mass purge request through FIX or OTTO, Participants will be able to submit a Kill Switch request on a user level only. This is a change from the ability to cancel orders on either a user or group level<sup>9</sup> with the interface. The Exchange proposes to amend Options 3, Section 17(a) to note this change by removing the words “or group” and the following sentence that applies to a group.<sup>10</sup>

Finally, the Exchange proposes to amend proposed Options 3, Section 17(a)(2) to align to MRX’s rule text by providing “Once a BX Participant initiates a Kill Switch

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<sup>8</sup> See Securities Exchange Act Release No. 76116 (October 8, 2015), 80 FR 62147 (October 15, 2015) (SR-BX-2015-050) (Order Approving Proposed Rule Change To Adopt a Kill Switch).

<sup>9</sup> A permissible group could include all badges associated with a Market Maker. Today, a Participant is able to set up these groups in the interface to include all or some of the Identifiers associated with the Participant firm so that a GUI Kill Switch request could apply to this pre-defined group.

<sup>10</sup> The Exchange proposes to remove this sentence, “Permissible groups must reside within a single broker-dealer” as the group option would no longer exist.

pursuant to (a)(1) above...” in the first sentence. This amendment simply rewords the rule text without a substantive amendment to the rule text.

*Options 3, Section 18*

The Exchange proposes to amend Options 3, Section 18, Detection of Loss of Communication. The Exchange proposes to add OTTO to Options 3, Section 18 as OTTO would also be subject to this rule. Today, when the SQF Port or the FIX Port detects the loss of communication with a Participant’s Client Application because the Exchange’s server does not receive a Heartbeat message for a certain time period, the Exchange will automatically logoff the Participant’s affected Client Application and automatically cancel all of the Participant’s open quotes through SQF and open orders through FIX. Quotes and orders are cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.

At this time, the Exchange proposes to permit orders entered through OTTO to be cancelled similar to FIX orders when the Exchange’s server does not receive a Heartbeat message for a certain time period. The Exchange is proposing to amend Options 3, Section 18 to also rearrange the rule text to add the word “Definitions” next to “a” and move the rule text in current “a” to “b” and re-letter the other paragraphs accordingly. Also, the Exchange proposes to define “Session of Connectivity” for purposes of this rule to mean each time the Participant connects to the Exchange’s System. Further, each new connection, intra-day or otherwise, is a new Session of Connectivity. The Exchange proposes to use the new definition throughout Options 3, Section 18.

Similar to FIX, when the OTTO Port detects the loss of communication with a Participant’s Client Application because the Exchange’s server does not receive a

Heartbeat message for a certain time period, the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's open orders through OTTO. Orders would be cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.

The Exchange proposes to update Options 3, Section 18 to provide in proposed Options 3, Section 18(a)(3) that the OTTO Port is the Exchange's proprietary System component through which Participants communicate their orders from the Client Application.

Further, the Exchange would note in proposed Options 3, Section 18(c) that when the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to proposed Section 18(f), automatically cancel all orders. Proposed Options 3, Section 18(f) would provide that the default period of "nn" seconds for OTTO Ports would be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. A Participant may determine another time period of "nn" seconds of no technical connectivity, as required in proposed paragraph (c), to trigger the disconnect and, if so elected, the removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for OTTO Ports prior to each Session of Connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

Proposed Options 3, Section 18(f)(1) would provide that if the Participant changes the default number of “nn” seconds, that new setting shall be in effect throughout the current Session of Connectivity and will then default back to fifteen seconds. The Participant may change the default setting prior to each Session of Connectivity. Finally, as proposed in Options 3, Section 18(f)(2), if the time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant will persist for each subsequent Session of Connectivity until the Participant either contacts Exchange operations by phone and changes the setting or the Participant selects another time period through the Client Application prior to the next Session of Connectivity. The trigger for OTTO Ports is event and Client Application specific. The automatic cancellation of the BX Options Market Maker’s open orders for OTTO Ports entered into the respective OTTO Ports via a particular Client Application will neither impact nor determine the treatment of orders of the same or other Participants entered into the OTTO Ports via a separate and distinct Client Application. The proposed amendments for OTTO mirror the manner in which FIX Ports are treated when the Exchange’s server does not receive a Heartbeat message for a certain time period for a FIX Port.<sup>11</sup>

### **Pricing**

BX proposes to amend its Pricing Schedule at Options 7, Section 3, BX Options Market – Ports and other Services, to add pricing for the new OTTO protocol. Specifically, BX proposes to offer Participants the first OTTO Port at no cost. The one OTTO Port would permit BX Participants to submit orders into BX. Today, only one

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<sup>11</sup> The Exchange proposes to update internal cross-references to accommodate relocated text.

account number<sup>12</sup> is necessary to transact an options business on BX and account numbers are available to Participants at no cost. The Exchange proposes to note in the Pricing Schedule at Options 7, Section 3 that BX does not assess a fee for an account number to provide greater transparency to Participants.

The Exchange proposes to assess an OTTO Port Fee of \$650 per port, per month, per account number for each subsequent port beyond the first port. This is the same fee assessed for OTTO Ports on MRX and GEMX.<sup>13</sup> Additional OTTO Ports beyond the first OTTO Port would be optional for Participants to utilize as the Exchange is offering the first OTTO order protocol, per Participant, at no cost and only one port is necessary to enter orders into BX.<sup>14</sup>

#### Implementation

The Exchange will implement this rule change on or before December 20, 2025. The Exchange will announce the operative date to Participants in an Options Trader Alert.

#### b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>15</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>16</sup> in particular, in that it is designed to promote just and equitable principles of trade, to remove

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<sup>12</sup> An “account number” means a number assigned to a Participant. Participants may have more than one account number. See Options 1, Section 1(a)(2).

<sup>13</sup> See MRX Options 7, Section 6 and GEMX Options 7, Section 6, C. MRX and GEMX do not offer an OTTO Port at no cost. MRX offers the first FIX Port at no cost.

<sup>14</sup> The Exchange proposes to renumber the SQF Port Fee and SQF Purge Port Fee in Options 7, Section 3(i).

<sup>15</sup> 15 U.S.C. 78f(b).

<sup>16</sup> 15 U.S.C. 78f(b)(5).

impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest. Additionally, the Exchange believes that its proposal furthers the objectives of Sections 6(b)(4) and 6(b)(5) of the Act,<sup>17</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees, and other charges among members and issuers and other persons using any facility, and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

### **OTTO Protocol**

The Exchange's proposal to adopt OTTO is consistent with the Act because OTTO would provide BX Participants with an alternative protocol to submit orders to the Exchange. As proposed, BX would offer the first OTTO Port at no cost to submit orders into BX, which would remove impediments to and perfect the mechanism of a free and open market. While BX Participants may elect to obtain multiple ports to organize their business,<sup>18</sup> only one order port is necessary for a Participant to enter orders on BX. A BX Participant may send all orders, proprietary and agency, through one port to BX without incurring any cost with this proposal. In the alternative, BX Participants may elect to obtain multiple ports to organize their business.<sup>19</sup>

With the addition of OTTO, a BX Participant may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. Each

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<sup>17</sup> See 15 U.S.C. 78f(b)(4) and (5).

<sup>18</sup> For example, a Participant may desire to utilize multiple FIX or OTTO Ports for accounting purposes, to measure performance, for regulatory reasons or other determinations that are specific to that Participant.

<sup>19</sup> For example, a Participant may desire to utilize multiple FIX or OTTO Ports for accounting purposes, to measure performance, for regulatory reasons or other determinations that are specific to that Participant.

BX Participant would receive one OTTO Port at no cost, thereby promoting just and equitable principles of trade. The Exchange notes that Participants may prefer one order protocol as compared to another order protocol, for example, the ability to route an order may cause a Participant to utilize FIX and a Participant that desires to execute an order locally may utilize OTTO. Also, the OTTO Port offers lower latency as compared to the FIX Port, which may be attractive to Participants depending on their trading behavior. With this proposal, BX Participant may organize their business as they chose with the ability to send orders to BX at no cost. The proposed new OTTO protocol is identical to the OTTO protocol offered today on ISE, GEMX, MRX.

#### **Other Amendments**

In connection with offering OTTO, the Exchange proposes to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized. IOC Orders may be entered through FIX, OTTO or SQF. A Day order may be entered through FIX or OTTO. A GTC order may only be entered through FIX. A Public Customer-to-Public Customer Cross Order may be entered through FIX or OTTO. Other processes such the Opening Cancel Timer would impact FIX and OTTO equally.

The Exchange's proposal to amend the Kill Switch at Options 3, Section 17 to align its rule text in proposed Options 3, Section 17(a) and (a)(2) with MRX's Options 3, Section 17 is consistent with the Act because it does not substantively amend the functionality beyond removing the group level cancel capability. The Exchange's proposal to amend proposed Options 3, Section 17(a)(2) to specify that FIX and OTTO orders may be cancelled is consistent with the Act as it will make clear that all orders entered on BX may be purged through the Kill Switch. Finally, allowing BX Participants

to send a mass purge request through FIX or OTTO, in lieu of an interface, is consistent with Act and the protection of investors and the general public because it will enable BX Participants to initiate the Kill Switch more seamlessly without the need to utilize a separate interface. Further, utilizing the order protocols directly, in lieu of the interface, will align the Kill Switch functionality to that of ISE, GEMX and MRX. When initiating a cancellation of their orders by sending a mass purge request through FIX or OTTO, Participants will be able to submit a Kill Switch request on a user level only because the purge will be specific to a FIX or OTTO user for these ports.

Finally, the Detection of Loss of Communication would apply equally to FIX and OTTO. The Exchange believes that its proposal is consistent with the Act and protects investors as the Exchange is making clear what types of order types and other mechanisms may utilize OTTO. Today, BX Participants utilize FIX to enter their orders. Despite the fact that OTTO would not be available for the GTC Time-In-Force modifier, the Exchange notes that one OTTO Port is being provided to Participants at no cost. Today, FIX is the only manner in which to enter orders into BX.

### **Pricing**

BX's proposal to amend its Pricing Schedule at Options 7, Section 3 will offer BX Participants the first OTTO Port at no cost to submit orders into BX. Only BX Participants may utilize ports on BX. A Participant can send all orders, proprietary and agency, through one port to BX. Only one order entry protocol is required for BX Participants to submit orders into BX to meet its regulatory requirements.<sup>20</sup> Additional

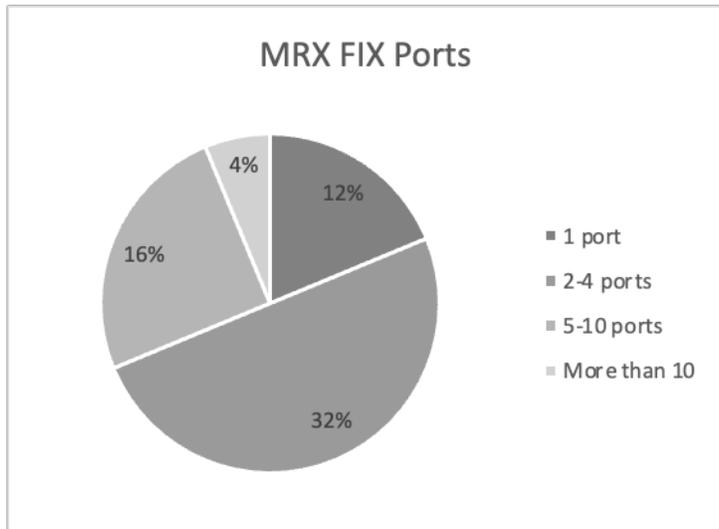
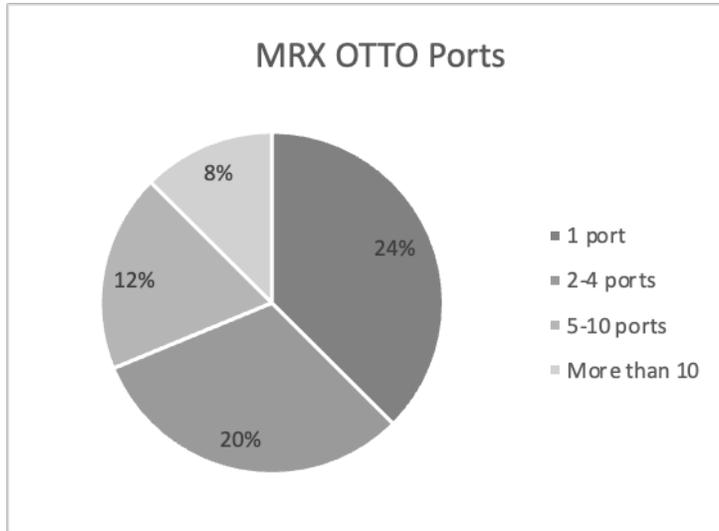
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<sup>20</sup> BX Participants have trade-through requirements under Regulation NMS as well as broker-dealers' best execution obligations. See Rule 611 of Regulation NMS; 17 CFR 242.611 and FINRA Rule 5310.

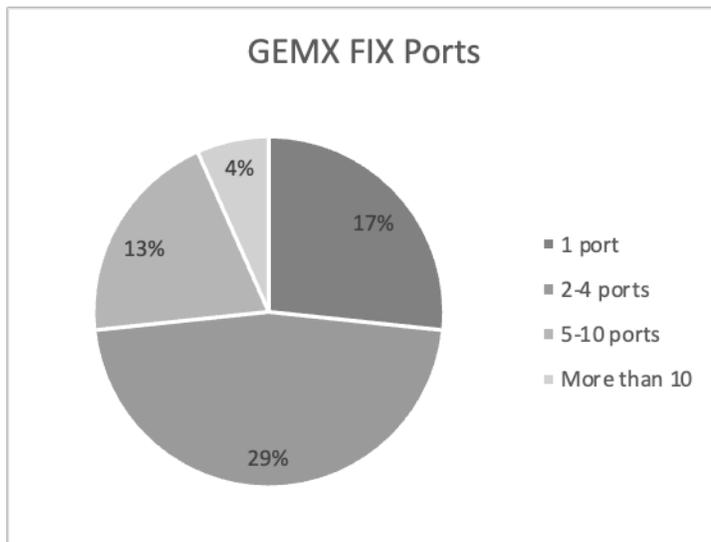
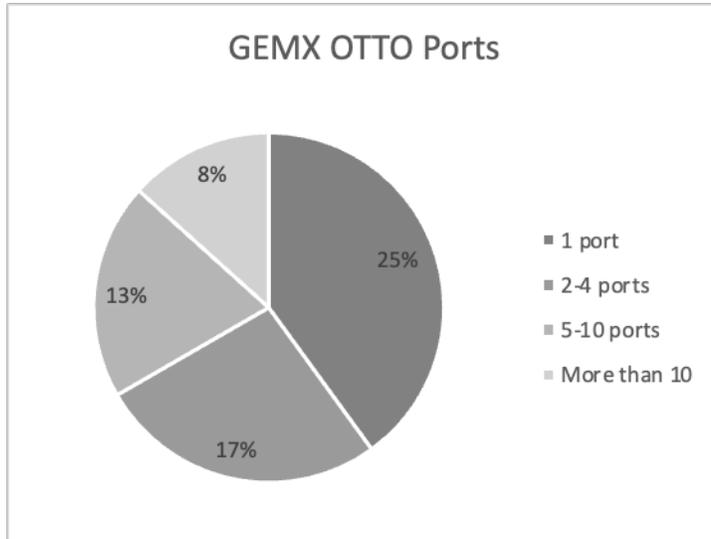
ports beyond one port are not required for a BX Participant to meet its regulatory obligations. Participants may elect to obtain multiple account numbers to organize their business, however only one account number is necessary to transact options business on BX and account numbers are available to Participants at no cost.

The Exchange's proposal is reasonable, equitable and not unfairly discriminatory as BX is providing Participants the first OTTO Port to submit orders at no cost. One OTTO Port would allow a BX Participant to meet its regulatory requirements. Additional OTTO Ports, beyond the first port which is being offered at no cost, are not required for a BX Participant to meet its regulatory obligations. For the foregoing reasons, the Exchange believes that it is reasonable to assess no fee for the first OTTO Port obtained by a BX Participant as a BX Participant is able to meet its regulatory requirements with one OTTO Port. Additionally, the OTTO protocol is a proprietary protocol of Nasdaq, Inc. The Exchange continues to innovate and modernize technology so that it may continue to compete among options markets. The ability to continue to innovate with technology and offer new products to market participants allows BX to remain competitive in the options space which currently has seventeen options markets and potential new entrants.

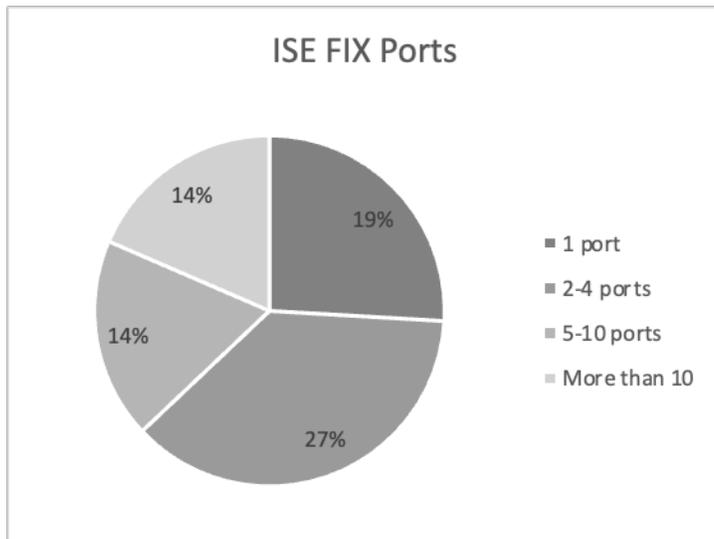
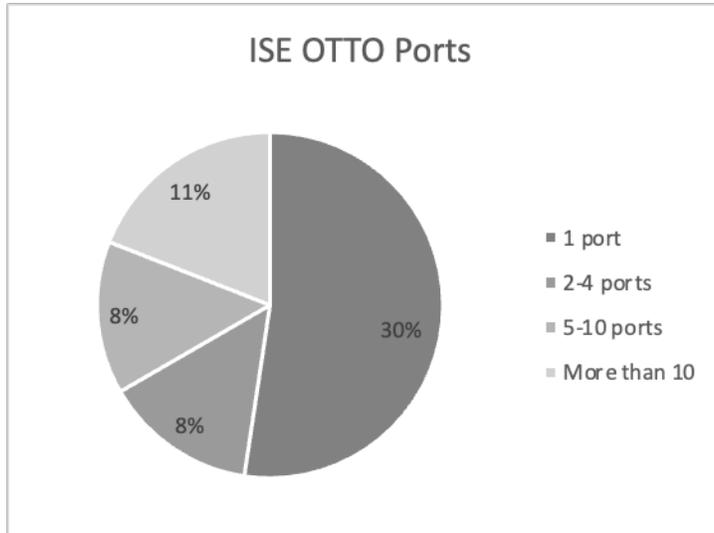
Today, a Member on ISE, GEMX, or MRX may utilize either a FIX or an OTTO Port to submit orders to the respective exchange. In analyzing the data provided below for ISE, GEMX and MRX, it is important to note that 30% of members on ISE subscribe to 1 OTTO Port and 24% of members subscribe to 1 FIX Port. ISE had a market share of 5.90% in 2023. Below are charts which display the number of members that subscribe to OTTO and FIX Ports on MRX.



Below are charts which display the number of members that subscribe to OTTO and FIX Ports on GEMX.



Below are charts which display the number of members that subscribe to OTTO and FIX Ports on ISE.



Further it is equitable and not unfairly discriminatory to assess no fee for the first OTTO Port to a BX Participant as all BX Participants would be entitled to the first OTTO Port at no cost. With this proposal, BX Participants may organize their business in such a way as to submit orders to BX at no cost.

The Exchange’s proposal to assess BX Participants \$650 per port, per month, per account number for OTTO Ports beyond the first port is reasonable because these ports are not required for a member to meet its regulatory requirements. BX Participants only require one order entry port to submit orders to BX. The Exchange is offering

Participants one free OTTO Port. Participants that subscribe to FIX could utilize their FIX Port to submit orders and would not need to utilize an OTTO Port. Participants electing to subscribe to more than one OTTO Port are choosing the additional ports to accommodate their business model. For example, a Participant may purchase one or more OTTO Ports for its market making business, and then purchase separate OTTO Ports for proprietary trading or customer facing businesses, allowing the firm to send multiple messages into the Exchange's System in parallel rather than sequentially. Some Participants that provide direct market access to their customers may also choose to purchase separate ports for different clients. While a smaller Participant may choose to subscribe to two OTTO Ports, a larger market participant with a substantial and diversified U.S. options business may opt to purchase multiple OTTO Ports to support both the volume and types of activity that they conduct on the Exchange. While the Exchange has no way of predicting with certainty the amount of OTTO Ports market participants will in fact purchase, the Exchange anticipates that some Participants will subscribe to multiple OTTO Ports. The Exchange believes that the proposed OTTO Port fees beyond the first port are reasonable because these ports are not required for a member to meet its regulatory requirements. Additionally, the proposed OTTO Port fee of \$650 per port, per month, per account number is the same fee charged for OTTO Ports on MRX and GEMX.<sup>21</sup>

The Exchange's proposal to assess BX Participants \$650 per port, per month, per account number for OTTO Ports beyond the first port is equitable and not unfairly

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<sup>21</sup> See MRX Options 7, Section 6 and GEMX Options 7, Section 6, C. MRX and GEMX do not offer an OTTO Port at no cost. MRX offers the first FIX Port at no cost.

discriminatory because any BX Participant may elect to subscribe to additional OTTO Ports, however BX Participants only require one order entry port to submit orders to BX. The Exchange is offering Participants one free OTTO Port. Participants that subscribe to FIX could utilize their FIX Port to submit orders and would not need to utilize an OTTO Port. As noted herein, all BX Participants would be subject to the same fees for OTTO Ports. Also, as noted herein, account numbers are available on BX at no cost.

Unlike ISE, GEMX and MRX, BX only offers its Participants a FIX Port to submit orders to BX. As noted herein, the proposed OTTO Port Fee for additional ports is comparable to GEMX and MRX, which markets assess an OTTO Port Fee of \$650 per port, per month, per account number.<sup>22</sup> GEMX and MRX do not offer the first OTTO Port at no cost, however MRX offers the first FIX Port at no cost.<sup>23</sup> Cboe offers more than one order entry port. Cboe port fees<sup>24</sup> are within the range of the proposed fees. Cboe does not offer a free order entry port and tiers its BOE and FIX Logical ports so that each subsequent port fee is higher than BX's port fees. Additionally, Cboe limits usage on each port and assesses fees for incremental usage<sup>25</sup> thereby increasing the expense for ports if the usage is exceeded and potentially requiring market participants to acquire additional ports to avoid additional costs. BOX port fees<sup>26</sup> are within the range

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<sup>22</sup> See GEMX Options 7, Section 6.C and MRX Options 7, Section 6.

<sup>23</sup> See GEMX Options 7, Section 6.C and MRX Options 7, Section 6.

<sup>24</sup> Cboe assesses a fee of \$750 per port up to 5 BOE/FIX Logical Ports, and \$800 per port for over 5 BOE/FIX Logical Ports. See Cboe's Fees Schedule.

<sup>25</sup> Each Cboe BOE or FIX Logical Port incur the logical port fee indicated when used to enter up to 70,000 orders per trading day per logical port as measured on average in a single month. For each incremental usage of up to 70,000 per day per logical port will incur an additional logical port fee of \$800 per month. See Cboe's Fees Schedule.

<sup>26</sup> BOX assesses tiered FIX Port Fees as follows: \$500 per port per month for the first FIX Port, \$250 per port per month for FIX Ports 2-5 and \$150 per port per month for over 5 FIX Ports. BOX assesses \$1000 per month for all SAIL Ports for Market Making and \$500 per month per

of the proposed fees. While BOX does not offer an order entry port at no cost, it tiers its FIX and SAIL port fees and each subsequent port fee is lower. MIAX port fees<sup>27</sup> are within the range of the proposed fees. MIAX Port users are allocated two (2) Full Service MEI Ports and two (2) Limited Service MEI Ports per matching engine to which they connect.<sup>28</sup> NYSE Arca port fees<sup>29</sup> are within the range of the proposed fees. For each order/quote entry port utilized, NYSE Arca Market Makers may utilize, free of charge, one port dedicated to quote cancellation or “quote takedown,” which port(s) will not be included in the count of order/quote entry ports utilized.<sup>30</sup>

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- port up to 5 ports for order entry and \$150 per month for each additional port. See BOX’s Fee Schedule.
- <sup>27</sup> MIAX tiers its FIX Port fees as follows: \$550 per month for the 1<sup>st</sup> FIX Port, \$350 per month per port for the FIX Ports 2 through 5 and \$150 per month for over 5 FIX Ports. MIAX tiers its MEI Port Fees and assesses fees per number of classes and as a percentage of National Average Daily Volume. MEI Port fees range from \$5,000 to \$20,500 per month. The applicable fee rate is the lesser of either the per class basis or percentage of total national average daily volume measurement. However, if the Market Maker’s total monthly executed volume during the relevant month is less than 0.060% of the total monthly executed volume reported by The Options Clearing Corporation in the market maker account type for MIAX-listed option classes for that month, then the fee will be \$14,500 instead of the fee otherwise applicable. MIAX will assess monthly MEI Port Fees on Market Makers in each month the Member has been credentialed to use the MEI Port in the production environment and has been assigned to quote in at least one class. See MIAX’s Fee Schedule.
- <sup>28</sup> MEI Port Fees include MEI Ports at the Primary, Secondary and Disaster Recovery data centers. MIAX Market Makers may request additional Limited Service MEI Ports for which MIAX will assess MIAX Market Makers \$100 per month per additional Limited Service MEI Port for each engine. See MIAX’s Fee Schedule.
- <sup>29</sup> NYSE Arca assesses a tiered order/quote entry port fee of \$450 for the first 40 ports and \$150 per port per month for the 41 ports or greater. For purpose of calculating the number of order/quote entry ports and quote takedown ports, NYSE Arca aggregates the ports of affiliates. See NYSE Arca Options Fees and Charges.
- <sup>30</sup> Any quote takedown port utilized by a NYSE Arca Market Maker that is in excess of the number of order/quote entry ports utilized will be counted and charged as an order/quote entry port. See NYSE Arca Options Fees and Charges.

#### 4. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The OTTO protocol is a proprietary protocol of Nasdaq, Inc. The Exchange continues to innovate and modernize technology so that it may continue to compete among options markets. The ability to continue to innovate with technology and offer new products to market participants allows BX to remain competitive in the options space which currently has seventeen options markets and potential new entrants. If BX were unable to offer and price new protocols, it would result in an undue burden on competition as BX would not have the ability to innovate and modernize its technology to compete effectively in the options space. BX's ability to offer OTTO will enable it to compete with other options markets that provide its market participants a choice as to the type of order entry protocols that may be utilized. BX's ability to offer and price new and innovative products and continue to modernize its technology, similar to other options markets, supports intermarket competition.

#### **OTTO Protocol**

The Exchange's proposal to adopt an OTTO Protocol does not impose an undue burden on intramarket competition. Today, all BX Participants utilize FIX to send orders to BX. The Exchange would offer each BX Participant the first OTTO Port at no cost with this proposal. With the addition of OTTO Ports, a BX Participant may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. The Exchange's proposal to adopt an OTTO Protocol does not impose an

undue burden on intermarket competition as other options exchanges offer multiple protocols today such as ISE, GEMX and MRX.

### **Other Amendments**

The Exchange's proposal to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized does not impose an undue burden on intramarket competition as these rules will apply in the same manner to all Participants. The Exchange's proposal to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized does not impose an undue burden on intermarket competition as other options exchanges may elect to utilize their order entry protocols in different ways.

### **Pricing**

Nothing in the proposal burdens intermarket competition because BX's proposal to offer the first OTTO Port for free permits BX to set fees, similar to other options markets, while continuing to allow BX Participants to meet their regulatory obligations. BX's proposal would permit BX Participants the ability to submit orders to BX at no cost through OTTO. Additional OTTO Ports are not required for BX Participants to meet their regulatory obligations. The proposed port fees are similar to port fees assessed by other options markets as noted in this proposal. Further, 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. The Exchange notes that while the manner in which an order is sent to the Exchange may have an impact on latency, the difference from a latency standpoint would be in nanoseconds, and it would depend on the manner in which

the order is being sent to the Exchange. A market participant sending 30 sequential orders through an OTTO Port may experience a slight latency of certain nanoseconds (less than a few nanoseconds) to permit serialized processing in the port and the match engine per order in certain cases. This is compared to a BX participant who submits 30 orders through multiple OTTO Ports at the same time. This distinction exists today on other options exchanges that offer market participants the ability to submit order flow in bulk,<sup>31</sup> which results in a larger number of orders being sent to the exchange's match engine in a quicker timeframe as compared to market participants that utilize a port that does not support bulk orders. Also, as noted herein, OTTO Orders do not route and therefore have a lower latency as compared to orders sent via a FIX Port. The Exchange notes that other factors may also contribute to the time it takes for an order to be executed. For example, on an exchange that offers complex orders, such orders with a stock component, may take additional time to execute as compared to a market order. In short, while latency may play a very small factor in the quantity of ports that are being utilized to send an order to the Exchange, all market participants may elect how their order is sent to an exchange. The Exchange notes that there is no correlation between the number of orders executed on the Exchange by a Participant and the number of ports subscribed to by a Participant. There are Participants that subscribe to a larger number of ports that have lower executed volumes on BX than those with half of the number of

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<sup>31</sup> Cboe offers BOE Bulk Logical Ports. See Cboe's Fee Schedule. See Securities Exchange Act Release No. 90333 (November 4, 2020), 85 FR 71666 (November 10, 2020) (SR-CBOE-2020-105). Cboe amended access and connectivity fees, including port fees. Specifically, Cboe adopted certain logical ports to allow for the delivery and/or receipt of trading messages – i.e., orders, accepts, cancels, transactions, etc. Cboe established tiered pricing for BOE/FIX Logical Ports, with the lowest tier starting at \$750 per port, per month for 1 to 5 ports, and for BOE Bulk Logical Ports with separate tiered pricing starting at \$1,500 per port, per month for 1 to 5 ports. Cboe also established flat prices for DROP, Purge Ports, GRP Ports and Multicast PITCH/Top Spin Server Ports.

ports. Also, not all ports subscribed to by a Participant are active. Further, all Participants are entitled to obtain additional OTTO Ports or a mix of OTTO and FIX Ports. The Exchange is providing each Participant the first OTTO Port at no cost. To the extent Participants elect to utilize different technologies and connections to the Exchange, including different numbers and combinations of ports, the Exchange believes that the combinations may result in varying latencies as is the case on all other options exchanges today.

Nothing in the proposal burdens intra-market competition because the Exchange would uniformly assess the OTTO Port fees to all BX Participants, as applicable. Further, other exchanges have increased or added port fees in recent years. As recently as 2020, Cboe amended its port fees.<sup>32</sup> Specifically, Cboe adopted certain logical ports to allow for the delivery and/or receipt of trading messages – i.e., orders, accepts, cancels, transactions, etc. Cboe established tiered pricing for BOE and FIX logical ports, tiered pricing for BOE Bulk ports, and flat prices for DROP, Purge Ports, GRP Ports and Multicast PITCH/Top Spin Server Ports. Cboe argued in its fee proposal that the proposed pricing more closely aligned its access fees to those of its affiliated exchanges, and reasonably so, as the affiliated exchanges offer substantially similar connectivity and functionality and are on the same platform that Cboe migrated to as part of its migration. Cboe also justified its pricing by stating that, “...the Exchange believes substitutable products and services are in fact available to market participants, including, among other things, other options exchanges a market participant may connect to in lieu of the

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<sup>32</sup> See Securities Exchange Act Release No. 90333 (November 4, 2020), 85 FR 71666 (November 10, 2020) (SR-CBOE-2020-105).

Exchange, indirect connectivity to the Exchange via a third-party reseller of connectivity and/or trading of any options product, including proprietary products, in the Over-the-Counter (OTC) markets.”<sup>33</sup> Cboe stated in its proposal that,

The rule structure for options exchanges are also fundamentally different from those of equities exchanges. In particular, options market participants are not forced to connect to (and purchase market data from) all options exchanges. For example, there are many order types that are available in the equities markets that are not utilized in the options markets, which relate to mid-point pricing and pegged pricing which require connection to the SIPs and each of the equities exchanges in order to properly execute those orders in compliance with best execution obligations. Additionally, in the options markets, the linkage routing and trade through protection are handled by the exchanges, not by the individual members. Thus not connecting to an options exchange or disconnecting from an options exchange does not potentially subject a broker-dealer to violate order protection requirements. Gone are the days when the retail brokerage firms (such as Fidelity, Schwab, and eTrade) were members of the options exchanges – they are not members of the Exchange or its affiliates, they do not purchase connectivity to the Exchange, and they do not purchase market data from the Exchange. Accordingly, not only is there not an actual regulatory requirement to connect to every options exchange, the Exchange believes there is also no “de facto” or practical requirement as well, as further evidenced by the recent significant reduction in the number of broker-dealers that are members of all options exchanges.<sup>34</sup>

The proposal also referenced the National Market System Plan Governing the Consolidated Audit Trail (“CAT NMS Plan”),<sup>35</sup> wherein the Commission discussed the existence of competition in the marketplace generally, and particularly for exchanges with unique business models. The Commission acknowledged that, even if an exchange were to exit the marketplace due to its proposed fee-related change, it would not significantly impact competition in the market for exchange trading services because

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<sup>33</sup> Id. at 71676.

<sup>34</sup> Id. at 71677.

<sup>35</sup> See Securities Exchange Act Release No. 86901 (September 9, 2019), 84 FR 48458 (September 13, 2019) (File No. S7-13-19).

these markets are served by multiple competitors.<sup>36</sup> Further, the Commission explicitly stated that “[c]onsequently, demand for these services in the event of the exit of a competitor is likely to be swiftly met by existing competitors.”<sup>37</sup> Finally, the Commission recognized that while some exchanges may have a unique business model that is not currently offered by competitors, a competitor could create similar business models if demand were adequate, and if a competitor did not do so, the Commission believes it would be likely that new entrants would do so if the exchange with that unique business model was otherwise profitable.<sup>38</sup> Cboe concluded that the Exchange is subject to significant substitution-based competitive forces in pricing its connectivity and access fees.<sup>39</sup> Cboe stressed that the proof of competitive constraints does not depend on showing that members walked away, or threatened to walk away, from a product due to a pricing change. Rather, the very absence of such negative feedback (in and of itself, and particularly when coupled with positive feedback) is indicative that the proposed fees are, in fact, reasonable and consistent with the Exchange being subject to competitive forces in setting fees.<sup>40</sup>

MRX recently filed to establish port fees.<sup>41</sup> In SR-MRX-2023-05, MRX proposed to assess no fee for the first FIX Port obtained by an MRX Member and established fees for additional FIX Ports of \$650 per port, per month for each subsequent

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<sup>36</sup> Id.

<sup>37</sup> Id.

<sup>38</sup> Id.

<sup>39</sup> Id. at 71679.

<sup>40</sup> Id. at 71680.

<sup>41</sup> See Securities Exchange Act No. 96824(February 7, 2023), 88 FR 8975 (February 10, 2023) (SR-MRX-2023-05) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend MRX Options 7, Section 6).

port beyond the first port. MRX noted in SR-MRX-2023-05 that:

Only MRX Members may utilize ports on MRX. Any market participant that sends orders to a Member would not need to utilize a port. The Member can send all orders, proprietary and agency, through one port to MRX. Members may elect to obtain multiple account numbers to organize their business, however only one account number and one port for orders and one port for quotes is necessary for a Member to trade on MRX. All other ports offered by MRX are not required for an MRX Member to meet its regulatory obligations.

MRX also established fees for OTTO Ports, which ports are identical to the ports being offered on BX, and priced them the same as the proposed OTTO fees for BX. MRX assesses an OTTO Port Fee of \$650 per port, per month, per account number but does not offer the first OTTO Port at no cost because it was offering one FIX Port at no cost for order entry.

If the Commission were to apply a different standard of review to this proposal than it applied to other exchange fee filings, such as the Cboe or MRX fee filings,<sup>42</sup> it would create a burden on competition such that it would impair BX's ability to innovate new products, modernize its technology, and compete with other options markets.

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

No written comments were either solicited or received.

6. Extension of Time Period for Commission Action

Not Applicable.

7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)

The foregoing rule change has become effective pursuant to Section

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<sup>42</sup> See notes 30 and 39 above.

19(b)(3)(A)(iii)<sup>43</sup> of the Act and Rule 19b-4(f)(6) thereunder<sup>44</sup> in that it effects a change that: (i) does not significantly affect the protection of investors or the public interest; (ii) does not impose any significant burden on competition; and (iii) by its terms, does not become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest.

The Exchange's proposal does not significantly affect the protection of investors or the public interest as it provides BX Participants with another alternative to submit orders to the Exchange in addition to FIX. As proposed, BX would offer the first OTTO Port at no cost to submit orders into BX. A BX Participant may send all orders, proprietary and agency, through one port to BX without incurring any cost. In the alternative, BX Participants may elect to obtain multiple ports to organize their business.<sup>45</sup> With the addition of OTTO, a BX Participant may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. In connection with offering OTTO, the Exchange proposes to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized. IOC Orders may be entered through FIX, OTTO or SQF. A Day order may be entered through FIX or OTTO. A GTC order may only be entered through FIX. A Public Customer-to-Public Customer Cross Order may be entered through FIX or OTTO. Other processes such the Opening Cancel Timer would impact FIX and OTTO equally.

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<sup>43</sup> 15 U.S.C. 78s(b)(3)(A)(iii).

<sup>44</sup> 17 CFR 240.19b-4(f)(6).

<sup>45</sup> For example, a Participant may desire to utilize multiple FIX or OTTO Ports for accounting purposes, to measure performance, for regulatory reasons or other determinations that are specific to that Participant.

Finally, the Detection of Loss of Communication would apply equally to FIX or OTTO. The proposal makes clear what order types and other mechanisms may utilize OTTO. Today, BX Participants utilize FIX to enter their orders. Despite the fact that OTTO would not be available for GTC orders, the Exchange notes that OTTO is being provided to Participants at no cost and in addition to the FIX Ports that they already utilize today; FIX Ports are the only way to enter orders on BX. BX's proposal offers Participants the first OTTO Port at no cost to submit orders into BX. Only one account number is necessary to transact an options business on BX and account numbers are available to Participants at no cost. Further, BX Participants would have the options of acquiring additional OTTO Ports, beyond the first port, at a fee of \$650 per port, per month, per account number. The additional ports are optional because only one OTTO order protocol is necessary to submit orders into BX. The Exchange's proposal to note that "BX does not assess a fee for account numbers" in the Pricing Schedule is a non-substantive amendment that is intended to promote transparency. Today, the Exchange does not assess a fee for account numbers. GEMX and MRX price OTTO Ports at \$650 per port, per month, per account number.<sup>46</sup>

The Exchange's proposal does not impose any significant burden on competition. Today, all BX Participants utilize FIX to send orders to BX. The Exchange proposes to offer each BX Participant the first OTTO Port at no cost. With the addition of OTTO, a BX Participant may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. Other options exchanges offer multiple

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<sup>46</sup> See MRX Options 7, Section 6 and GEMX Options 7, Section 6, C. MRX and GEMX do not offer an OTTO Port at no cost. MRX offers the first FIX Port at no cost.

protocols today such as ISE, GEMX and MRX. The Exchange's proposal to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized applies to all BX Participants. BX's proposal to amend its Pricing Schedule at Options 7, Section 3 to offer BX Participants the first OTTO Port at no cost to submit orders to BX does not impose any significant burden on competition because all BX Participants will receive the first OTTO Port at no cost. A Participant can send all orders, proprietary and agency, through one port to BX. Participants may freely choose to rely on one or many ports, depending on their business model. The proposed fee of \$650 per port, per month, per account number for additional ports beyond the first OTTO port does not impose any significant burden on competition because any Participant may elect to subscribe to additional ports and would be assessed the same fee, which fee is identical to the cost of a FIX Port. With this proposal, BX Participants may organize their business in such a way as to submit orders to BX at no cost. The Exchange's proposal to note that "BX does not assess a fee for account numbers" in the Pricing Schedule does not impose any significant burden on competition, rather this amendment is intended to promote transparency. Today, the Exchange does not assess a fee for account numbers.

Furthermore, Rule 19b-4(f)(6)(iii)<sup>47</sup> requires a self-regulatory organization to give the Commission written notice of its intent to file a proposed rule change under that subsection at least five business days prior to the date of filing, or such shorter time as designated by the Commission. The Exchange has provided such notice.

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

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<sup>47</sup> 17 CFR 240.19b-4(f)(6)(iii).

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 should be approved or disapproved.

8. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission

The proposed OTTO protocol is identical to the OTTO protocol offered today on ISE, GEMX and MRX.

9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act

Not applicable.

10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

11. Exhibits

1. Notice of Proposed Rule Change for publication in the Federal Register.
5. Text of the proposed rule change.

**EXHIBIT 1**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. \_\_\_\_\_ ; File No. SR-BX-2024-006)

February \_\_, 2024

Self-Regulatory Organizations; Nasdaq BX, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Adopt an OTTO Protocol

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on February 15, 2024, Nasdaq BX, Inc. (“BX” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “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 proposes to adopt a new protocol, “Ouch to Trade Options” or “OTTO” and establish pricing for this new protocol.

The text of the proposed rule change is available on the Exchange’s Website at <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules>, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

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

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

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

BX proposes to offer a new order entry protocol called OTTO. Today, BX Participants may enter orders into the Exchange through the “Financial Information eXchange” or “FIX.”<sup>3</sup> The proposed new OTTO protocol is identical to the OTTO protocol offered today on 3 Nasdaq affiliated exchanges, Nasdaq ISE, LLC (“ISE”), Nasdaq GEMX, LLC (“GEMX”) and Nasdaq MRX, LLC (“MRX”).

The OTTO protocol is a proprietary protocol of Nasdaq, Inc. The Exchange continues to innovate and modernize technology so that it may continue to compete among options markets. The ability to continue to innovate with technology and offer new products to market participants allows BX to remain competitive in the options space which currently has seventeen options markets and potential new entrants.

**OTTO Protocol**

As proposed, OTTO would allow Participants and their Sponsored Customers<sup>4</sup> to connect, send, and receive messages related to orders, auction orders, and auction responses to the Exchange. OTTO features would include the following: (1) options

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<sup>3</sup> FIX is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders and auction orders and responses to and from the Exchange. Features include the following: (1) execution messages; (2) order messages; and (3) risk protection triggers and cancel notifications. In addition, a BX Participant may elect to utilize FIX to send a message and PRISM Order, as defined within Options 3, Section 13, to all BX Participants that opt in to receive Requests for PRISM requesting that it submit the sender’s PRISM Order with responder’s Initiating Order, as defined within Options 3, Section 13, into the Price Improvement Auction (“PRISM”) mechanism, pursuant to Options 3, Section 13 (“Request for PRISM”). See Options 3, Section 7(e)(1)(A).

<sup>4</sup> General 2, Section 22 describes Sponsored Access arrangements.

symbol directory messages (e.g., underlying and complex instruments); (2) System<sup>5</sup> event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; (6) risk protection triggers and cancel notifications; (7) auction notifications; (8) auction responses; and (9) post trade allocation messages. The Exchange notes that unlike FIX, which offers routing capability, OTTO does not permit routing. The Exchange proposes to include this description of OTTO in new Options 3, Section 7(e)(1)(B) and re-letter current “B” as “C”.

Only one order protocol is required for a BX Participant to submit orders into BX. Only BX Participants may utilize ports on BX. Any market participant that sends orders to a BX Participant would not need to utilize a port. The BX Participant may send all orders, proprietary and agency, through one port to BX. Participants may elect to obtain multiple ports to organize their business,<sup>6</sup> however only one port is necessary for a Participant to enter orders on BX.

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<sup>5</sup> The term “System” or “Trading System” means the automated system for order execution and trade reporting owned and operated by BX as the BX Options market. The BX Options market comprises: (A) an order execution service that enables Participants to automatically execute transactions in option series; and provides Participants with sufficient monitoring and updating capability to participate in an automated execution environment; (B) a trade reporting service that submits “locked-in” trades for clearing to a registered clearing agency for clearance and settlement; transmits last-sale reports of transactions automatically to the Options Price Reporting Authority for dissemination to the public and industry; and provides participants with monitoring and risk management capabilities to facilitate participation in a “locked-in” trading environment; and (C) the data feeds described in Options 3, Section 23. See BX Options 1, Section 1(a)(59).

<sup>6</sup> For example, a Participant may desire to utilize multiple FIX or OTTO Ports for accounting purposes, to measure performance, for regulatory reasons, segregating order flow among different trading desks, or other determinations that are specific to that Participant. A market participant may utilize multiple ports in some cases to send multiple orders through different ports to avoid any latency or queuing of orders. The Exchange notes that to the extent that different OTTO Ports are used to send multiple orders as compared to sending multiple orders through one OTTO Port the difference from a latency standpoint would be in nanoseconds.

Participants may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. Participants may prefer one protocol as compared to another protocol, for example, the ability to route may cause a Participant to utilize FIX and a Participant that desires to execute an order locally may prefer OTTO. Also, the OTTO Port offers lower latency as compared to the FIX Port, which may be attractive to Participants depending on their trading behavior. Nasdaq believes that the addition of OTTO will provide BX Participants with additional choice when submitting orders to BX.

While the Exchange has no way of predicting with certainty the amount or type of OTTO Ports market participants will in fact purchase, the Exchange anticipates that some Participants will subscribe to multiple OTTO Ports in combination with FIX Ports. The Exchange notes that Options Participants may use varying number of OTTO ports based on their business needs.

### **Other Amendments**

In connection with offering OTTO, the Exchange proposes to amend other rules within Options 3. Each amendment is described below.

#### *Options 3, Section 7*

BX proposes to amend Options 3, Section 7, Types of Orders and Quote Protocols. Specifically, BX proposes to amend Options 3, Section 7 (b)(2) that describes the Immediate-or-Cancel” or “IOC” order. Today, Options 3, Section 7(b)(2)(B) notes that an IOC order may be entered through FIX or SQF, provided that an IOC Order entered by a Market Maker through SQF is not subject to the Order Price Protection, the Market Order Spread Protection, or Size Limitation in Options 3, Section 15(a)(1), (a)(2),

and (b)(2), respectively. The Exchange proposes to add “OTTO” to the list of protocols to note that an IOC order may also be entered through OTTO.

BX also proposes to amend the “DAY” order in Options 3, Section 7(b)(3) that currently provides that a Day order may be entered through FIX. With the addition of OTTO, a Day order may also be entered through OTTO.

BX also proposes to amend the “Good Til Cancelled” or “GTC” order which currently does not specify that a GTC order may be entered through FIX. GTC orders would only be able to be entered through FIX and not OTTO. The Exchange proposes to amend Options 3, Section 7(b)(4) to add a sentence to note that GTC orders may be entered through FIX.

*Options 3, Section 8*

BX proposes to amend Options 3, Section 8, Options Opening Process. BX proposes to amend Options 3, Section 8(l) that describes the Opening Process Cancel Timer. The Opening Process Cancel Timer represents a period of time since the underlying market has opened. If an option series has not opened before the conclusion of the Opening Process Cancel Timer, a Participant may elect to have orders returned by providing written notification to the Exchange. Today, these orders include all non-Good Til Cancelled Orders received over the FIX protocol. The Exchange proposes to add the OTTO protocol as well to the rule text language in that paragraph.

*Options 3, Section 12*

The Exchange proposes to amend the Options 3, Section 12, Crossing Orders. Specifically, the Exchange proposes to amend Customer Crossing Orders in Options 3, Section 12(a) that currently provides Public Customer-to-Public Customer Cross Orders

are automatically executed upon entry provided that the execution is at or between the best bid and offer on the Exchange and (i) is not at the same price as a Public Customer Order on the Exchange's limit order book and (ii) will not trade through the NBBO. Public Customer-to-Public Customer Cross Orders must be entered through FIX. The Exchange proposes to remove the sentence that provides that Public Customer-to-Public Customer Cross Orders must be entered through FIX because they will be able to be entered through both FIX and OTTO.

*Options 3, Section 17*

The Exchange proposes to amend the Kill Switch at Options 3, Section 17. The Kill Switch provides Participants with an optional risk management tool to promptly cancel and restrict orders. With the introduction of OTTO, the Exchange proposes to align its Kill Switch rule text with MRX's Kill Switch.<sup>7</sup> The Exchange proposes to note in Options 3, Section 17(a) that BX Participants may initiate a message(s) to the System to promptly cancel and restrict their order activity on the Exchange, as is the case today, as described in section (a)(1). This amendment simply rewords the rule text without a substantive amendment to the rule text.

The Exchange proposes to renumber Options 3, Section 17(a)(i) and (ii) as (a)(1) and (2). Current Options 3, Section 17(a)(i) states, "If orders are cancelled by the BX Participant utilizing the Kill Switch, it will result in the cancellation of all orders requested for the Identifier(s). The BX Participant will be unable to enter additional orders for the affected Identifier(s) until re-entry has been enabled pursuant to section (a)(ii)." The Exchange proposes to instead provide, "A BX Participant may submit a

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<sup>7</sup> See MRX Options 3, Section 17.

request to the System through FIX or OTTO to cancel all existing orders and restrict entry of additional orders for the requested Identifier(s) on a user level on the Exchange.” With the addition of OTTO, the Exchange notes that both FIX and OTTO orders may be cancelled. Further, today, BX Participants utilize an interface to send a message to the Exchange to initiate a Kill Switch.<sup>8</sup> The Exchange notes that in lieu of the interface, BX Participants will only be able to initiate a cancellation of their orders by sending a mass purge request through FIX or OTTO. This change will align the Kill Switch functionality to that of ISE, GEMX and MRX Options 3, Section 17 and will enable BX Participants to initiate the Kill Switch more seamlessly without the need to utilize a separate interface. When initiating a cancellation of their orders by sending a mass purge request through FIX or OTTO, Participants will be able to submit a Kill Switch request on a user level only. This is a change from the ability to cancel orders on either a user or group level<sup>9</sup> with the interface. The Exchange proposes to amend Options 3, Section 17(a) to note this change by removing the words “or group” and the following sentence that applies to a group.<sup>10</sup>

Finally, the Exchange proposes to amend proposed Options 3, Section 17(a)(2) to align to MRX’s rule text by providing “Once a BX Participant initiates a Kill Switch pursuant to (a)(1) above...” in the first sentence. This amendment simply rewords the rule text without a substantive amendment to the rule text.

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<sup>8</sup> See Securities Exchange Act Release No. 76116 (October 8, 2015), 80 FR 62147 (October 15, 2015) (SR-BX-2015-050) (Order Approving Proposed Rule Change To Adopt a Kill Switch).

<sup>9</sup> A permissible group could include all badges associated with a Market Maker. Today, a Participant is able to set up these groups in the interface to include all or some of the Identifiers associated with the Participant firm so that a GUI Kill Switch request could apply to this pre-defined group.

<sup>10</sup> The Exchange proposes to remove this sentence, “Permissible groups must reside within a single broker-dealer” as the group option would no longer exist.

*Options 3, Section 18*

The Exchange proposes to amend Options 3, Section 18, Detection of Loss of Communication. The Exchange proposes to add OTTO to Options 3, Section 18 as OTTO would also be subject to this rule. Today, when the SQF Port or the FIX Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period, the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's open quotes through SQF and open orders through FIX. Quotes and orders are cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.

At this time, the Exchange proposes to permit orders entered through OTTO to be cancelled similar to FIX orders when the Exchange's server does not receive a Heartbeat message for a certain time period. The Exchange is proposing to amend Options 3, Section 18 to also rearrange the rule text to add the word "Definitions" next to "a" and move the rule text in current "a" to "b" and re-letter the other paragraphs accordingly. Also, the Exchange proposes to define "Session of Connectivity" for purposes of this rule to mean each time the Participant connects to the Exchange's System. Further, each new connection, intra-day or otherwise, is a new Session of Connectivity. The Exchange proposes to use the new definition throughout Options 3, Section 18.

Similar to FIX, when the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period, the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's

open orders through OTTO. Orders would be cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues. The Exchange proposes to update Options 3, Section 18 to provide in proposed Options 3, Section 18(a)(3) that the OTTO Port is the Exchange's proprietary System component through which Participants communicate their orders from the Client Application. Further, the Exchange would note in proposed Options 3, Section 18(c) that when the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to proposed Section 18(f), automatically cancel all orders. Proposed Options 3, Section 18(f) would provide that the default period of "nn" seconds for OTTO Ports would be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. A Participant may determine another time period of "nn" seconds of no technical connectivity, as required in proposed paragraph (c), to trigger the disconnect and, if so elected, the removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for OTTO Ports prior to each Session of Connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

Proposed Options 3, Section 18(f)(1) would provide that if the Participant changes the default number of "nn" seconds, that new setting shall be in effect throughout the current Session of Connectivity and will then default back to fifteen seconds. The

Participant may change the default setting prior to each Session of Connectivity. Finally, as proposed in Options 3, Section 18(f)(2), if the time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant will persist for each subsequent Session of Connectivity until the Participant either contacts Exchange operations by phone and changes the setting or the Participant selects another time period through the Client Application prior to the next Session of Connectivity. The trigger for OTTO Ports is event and Client Application specific. The automatic cancellation of the BX Options Market Maker’s open orders for OTTO Ports entered into the respective OTTO Ports via a particular Client Application will neither impact nor determine the treatment of orders of the same or other Participants entered into the OTTO Ports via a separate and distinct Client Application. The proposed amendments for OTTO mirror the manner in which FIX Ports are treated when the Exchange’s server does not receive a Heartbeat message for a certain time period for a FIX Port.<sup>11</sup>

### **Pricing**

BX proposes to amend its Pricing Schedule at Options 7, Section 3, BX Options Market – Ports and other Services, to add pricing for the new OTTO protocol. Specifically, BX proposes to offer Participants the first OTTO Port at no cost. The one OTTO Port would permit BX Participants to submit orders into BX. Today, only one account number<sup>12</sup> is necessary to transact an options business on BX and account numbers are available to Participants at no cost. The Exchange proposes to note in the

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<sup>11</sup> The Exchange proposes to update internal cross-references to accommodate relocated text.

<sup>12</sup> An “account number” means a number assigned to a Participant. Participants may have more than one account number. See Options 1, Section 1(a)(2).

Pricing Schedule at Options 7, Section 3 that BX does not assess a fee for an account number to provide greater transparency to Participants.

The Exchange proposes to assess an OTTO Port Fee of \$650 per port, per month, per account number for each subsequent port beyond the first port. This is the same fee assessed for OTTO Ports on MRX and GEMX.<sup>13</sup> Additional OTTO Ports beyond the first OTTO Port would be optional for Participants to utilize as the Exchange is offering the first OTTO order protocol, per Participant, at no cost and only one port is necessary to enter orders into BX.<sup>14</sup>

### Implementation

The Exchange will implement this rule change on or before December 20, 2025. The Exchange will announce the operative date to Participants in an Options Trader Alert.

## 2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>15</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>16</sup> in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest. Additionally, the Exchange believes that its proposal furthers the objectives of Sections 6(b)(4) and

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<sup>13</sup> See MRX Options 7, Section 6 and GEMX Options 7, Section 6, C. MRX and GEMX do not offer an OTTO Port at no cost. MRX offers the first FIX Port at no cost.

<sup>14</sup> The Exchange proposes to renumber the SQF Port Fee and SQF Purge Port Fee in Options 7, Section 3(i).

<sup>15</sup> 15 U.S.C. 78f(b).

<sup>16</sup> 15 U.S.C. 78f(b)(5).

6(b)(5) of the Act,<sup>17</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees, and other charges among members and issuers and other persons using any facility, and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

### **OTTO Protocol**

The Exchange's proposal to adopt OTTO is consistent with the Act because OTTO would provide BX Participants with an alternative protocol to submit orders to the Exchange. As proposed, BX would offer the first OTTO Port at no cost to submit orders into BX, which would remove impediments to and perfect the mechanism of a free and open market. While BX Participants may elect to obtain multiple ports to organize their business,<sup>18</sup> only one order port is necessary for a Participant to enter orders on BX. A BX Participant may send all orders, proprietary and agency, through one port to BX without incurring any cost with this proposal. In the alternative, BX Participants may elect to obtain multiple ports to organize their business.<sup>19</sup>

With the addition of OTTO, a BX Participant may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. Each BX Participant would receive one OTTO Port at no cost, thereby promoting just and equitable principles of trade. The Exchange notes that Participants may prefer one order protocol as compared to another order protocol, for example, the ability to route an order

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<sup>17</sup> See 15 U.S.C. 78f(b)(4) and (5).

<sup>18</sup> For example, a Participant may desire to utilize multiple FIX or OTTO Ports for accounting purposes, to measure performance, for regulatory reasons or other determinations that are specific to that Participant.

<sup>19</sup> For example, a Participant may desire to utilize multiple FIX or OTTO Ports for accounting purposes, to measure performance, for regulatory reasons or other determinations that are specific to that Participant.

may cause a Participant to utilize FIX and a Participant that desires to execute an order locally may utilize OTTO. Also, the OTTO Port offers lower latency as compared to the FIX Port, which may be attractive to Participants depending on their trading behavior. With this proposal, BX Participant may organize their business as they chose with the ability to send orders to BX at no cost. The proposed new OTTO protocol is identical to the OTTO protocol offered today on ISE, GEMX, MRX.

### **Other Amendments**

In connection with offering OTTO, the Exchange proposes to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized. IOC Orders may be entered through FIX, OTTO or SQF. A Day order may be entered through FIX or OTTO. A GTC order may only be entered through FIX. A Public Customer-to-Public Customer Cross Order may be entered through FIX or OTTO. Other processes such the Opening Cancel Timer would impact FIX and OTTO equally.

The Exchange's proposal to amend the Kill Switch at Options 3, Section 17 to align its rule text in proposed Options 3, Section 17(a) and (a)(2) with MRX's Options 3, Section 17 is consistent with the Act because it does not substantively amend the functionality beyond removing the group level cancel capability. The Exchange's proposal to amend proposed Options 3, Section 17(a)(2) to specify that FIX and OTTO orders may be cancelled is consistent with the Act as it will make clear that all orders entered on BX may be purged through the Kill Switch. Finally, allowing BX Participants to send a mass purge request through FIX or OTTO, in lieu of an interface, is consistent with Act and the protection of investors and the general public because it will enable BX Participants to initiate the Kill Switch more seamlessly without the need to utilize a

separate interface. Further, utilizing the order protocols directly, in lieu of the interface, will align the Kill Switch functionality to that of ISE, GEMX and MRX. When initiating a cancellation of their orders by sending a mass purge request through FIX or OTTO, Participants will be able to submit a Kill Switch request on a user level only because the purge will be specific to a FIX or OTTO user for these ports.

Finally, the Detection of Loss of Communication would apply equally to FIX and OTTO. The Exchange believes that its proposal is consistent with the Act and protects investors as the Exchange is making clear what types of order types and other mechanisms may utilize OTTO. Today, BX Participants utilize FIX to enter their orders. Despite the fact that OTTO would not be available for the GTC Time-In-Force modifier, the Exchange notes that one OTTO Port is being provided to Participants at no cost. Today, FIX is the only manner in which to enter orders into BX.

### **Pricing**

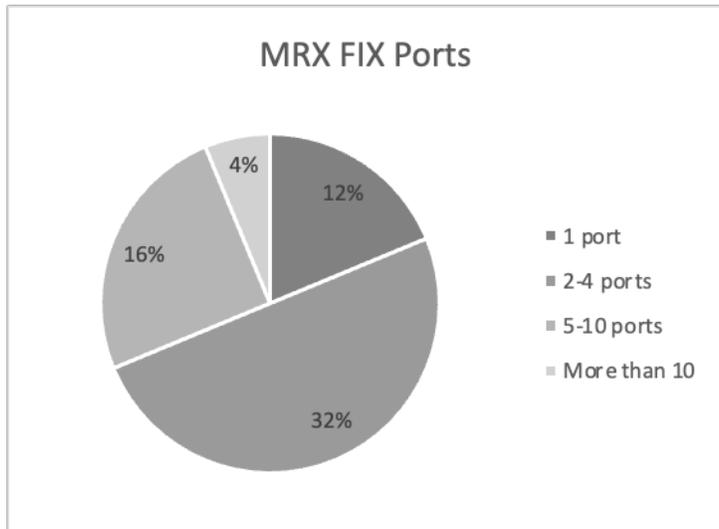
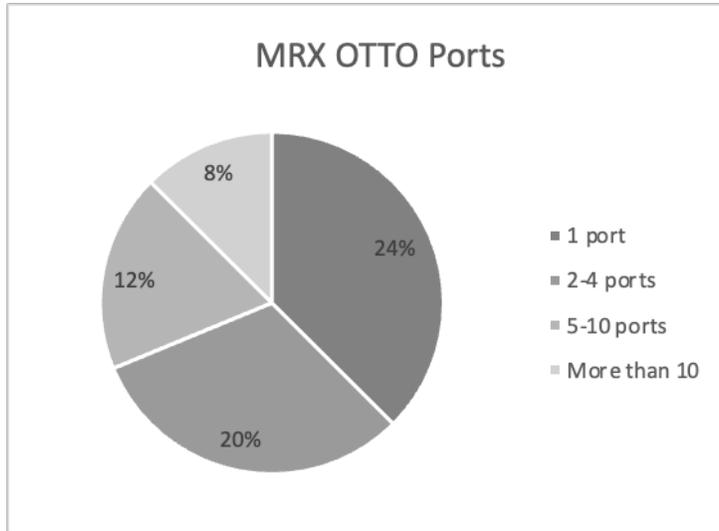
BX's proposal to amend its Pricing Schedule at Options 7, Section 3 will offer BX Participants the first OTTO Port at no cost to submit orders into BX. Only BX Participants may utilize ports on BX. A Participant can send all orders, proprietary and agency, through one port to BX. Only one order entry protocol is required for BX Participants to submit orders into BX to meet its regulatory requirements.<sup>20</sup> Additional ports beyond one port are not required for a BX Participant to meet its regulatory obligations. Participants may elect to obtain multiple account numbers to organize their business, however only one account number is necessary to transact options business on BX and account numbers are available to Participants at no cost.

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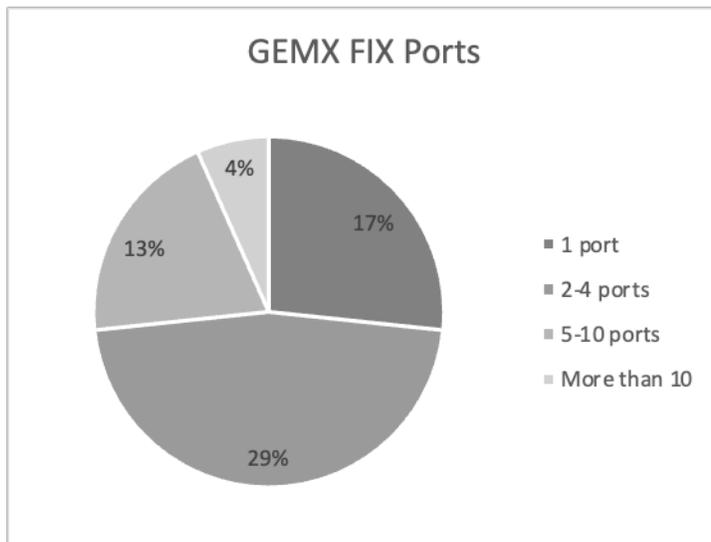
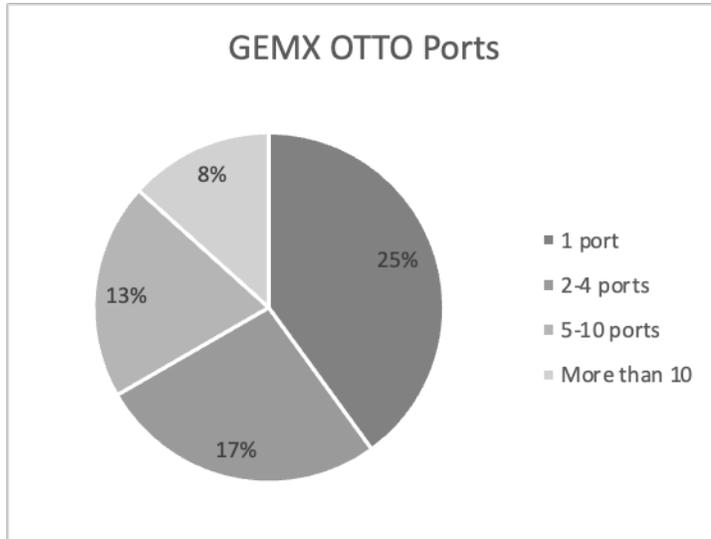
<sup>20</sup> BX Participants have trade-through requirements under Regulation NMS as well as broker-dealers' best execution obligations. See Rule 611 of Regulation NMS; 17 CFR 242.611 and FINRA Rule 5310.

The Exchange's proposal is reasonable, equitable and not unfairly discriminatory as BX is providing Participants the first OTTO Port to submit orders at no cost. One OTTO Port would allow a BX Participant to meet its regulatory requirements. Additional OTTO Ports, beyond the first port which is being offered at no cost, are not required for a BX Participant to meet its regulatory obligations. For the foregoing reasons, the Exchange believes that it is reasonable to assess no fee for the first OTTO Port obtained by a BX Participant as a BX Participant is able to meet its regulatory requirements with one OTTO Port. Additionally, the OTTO protocol is a proprietary protocol of Nasdaq, Inc. The Exchange continues to innovate and modernize technology so that it may continue to compete among options markets. The ability to continue to innovate with technology and offer new products to market participants allows BX to remain competitive in the options space which currently has seventeen options markets and potential new entrants.

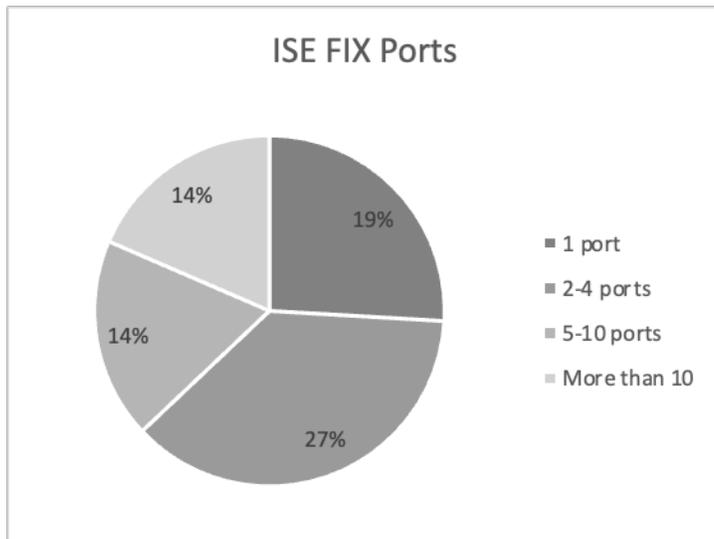
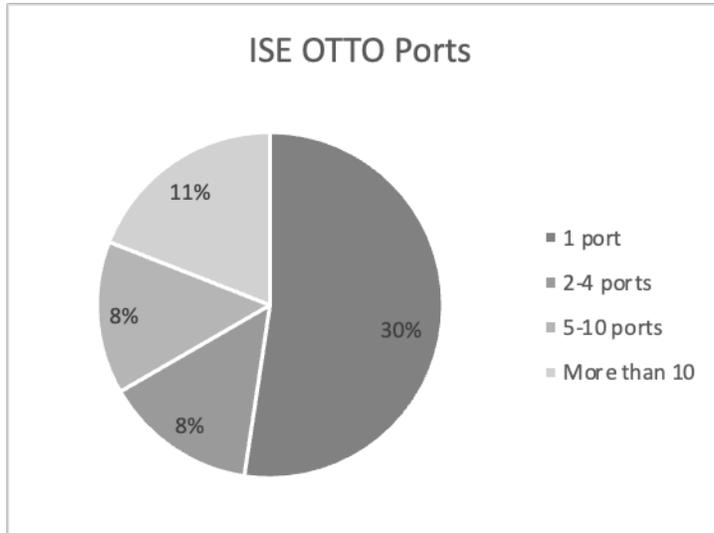
Today, a Member on ISE, GEMX, or MRX may utilize either a FIX or an OTTO Port to submit orders to the respective exchange. In analyzing the data provided below for ISE, GEMX and MRX, it is important to note that 30% of members on ISE subscribe to 1 OTTO Port and 24% of members subscribe to 1 FIX Port. ISE had a market share of 5.90% in 2023. Below are charts which display the number of members that subscribe to OTTO and FIX Ports on MRX.



Below are charts which display the number of members that subscribe to OTTO and FIX Ports on GEMX.



Below are charts which display the number of members that subscribe to OTTO and FIX Ports on ISE.



Further it is equitable and not unfairly discriminatory to assess no fee for the first OTTO Port to a BX Participant as all BX Participants would be entitled to the first OTTO Port at no cost. With this proposal, BX Participants may organize their business in such a way as to submit orders to BX at no cost.

The Exchange’s proposal to assess BX Participants \$650 per port, per month, per account number for OTTO Ports beyond the first port is reasonable because these ports are not required for a member to meet its regulatory requirements. BX Participants only require one order entry port to submit orders to BX. The Exchange is offering

Participants one free OTTO Port. Participants that subscribe to FIX could utilize their FIX Port to submit orders and would not need to utilize an OTTO Port. Participants electing to subscribe to more than one OTTO Port are choosing the additional ports to accommodate their business model. For example, a Participant may purchase one or more OTTO Ports for its market making business, and then purchase separate OTTO Ports for proprietary trading or customer facing businesses, allowing the firm to send multiple messages into the Exchange's System in parallel rather than sequentially. Some Participants that provide direct market access to their customers may also choose to purchase separate ports for different clients. While a smaller Participant may choose to subscribe to two OTTO Ports, a larger market participant with a substantial and diversified U.S. options business may opt to purchase multiple OTTO Ports to support both the volume and types of activity that they conduct on the Exchange. While the Exchange has no way of predicting with certainty the amount of OTTO Ports market participants will in fact purchase, the Exchange anticipates that some Participants will subscribe to multiple OTTO Ports. The Exchange believes that the proposed OTTO Port fees beyond the first port are reasonable because these ports are not required for a member to meet its regulatory requirements. Additionally, the proposed OTTO Port fee of \$650 per port, per month, per account number is the same fee charged for OTTO Ports on MRX and GEMX.<sup>21</sup>

The Exchange's proposal to assess BX Participants \$650 per port, per month, per account number for OTTO Ports beyond the first port is equitable and not unfairly discriminatory because any BX Participant may elect to subscribe to additional OTTO

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<sup>21</sup> See MRX Options 7, Section 6 and GEMX Options 7, Section 6, C. MRX and GEMX do not offer an OTTO Port at no cost. MRX offers the first FIX Port at no cost.

Ports, however BX Participants only require one order entry port to submit orders to BX. The Exchange is offering Participants one free OTTO Port. Participants that subscribe to FIX could utilize their FIX Port to submit orders and would not need to utilize an OTTO Port. As noted herein, all BX Participants would be subject to the same fees for OTTO Ports. Also, as noted herein, account numbers are available on BX at no cost.

Unlike ISE, GEMX and MRX, BX only offers its Participants a FIX Port to submit orders to BX. As noted herein, the proposed OTTO Port Fee for additional ports is comparable to GEMX and MRX, which markets assess an OTTO Port Fee of \$650 per port, per month, per account number.<sup>22</sup> GEMX and MRX do not offer the first OTTO Port at no cost, however MRX offers the first FIX Port at no cost.<sup>23</sup> Cboe offers more than one order entry port. Cboe port fees<sup>24</sup> are within the range of the proposed fees. Cboe does not offer a free order entry port and tiers its BOE and FIX Logical ports so that each subsequent port fee is higher than BX's port fees. Additionally, Cboe limits usage on each port and assesses fees for incremental usage<sup>25</sup> thereby increasing the expense for ports if the usage is exceeded and potentially requiring market participants to acquire additional ports to avoid additional costs. BOX port fees<sup>26</sup> are within the range

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<sup>22</sup> See GEMX Options 7, Section 6.C and MRX Options 7, Section 6.

<sup>23</sup> See GEMX Options 7, Section 6.C and MRX Options 7, Section 6.

<sup>24</sup> Cboe assesses a fee of \$750 per port up to 5 BOE/FIX Logical Ports, and \$800 per port for over 5 BOE/FIX Logical Ports. See Cboe's Fees Schedule.

<sup>25</sup> Each Cboe BOE or FIX Logical Port incur the logical port fee indicated when used to enter up to 70,000 orders per trading day per logical port as measured on average in a single month. For each incremental usage of up to 70,000 per day per logical port will incur an additional logical port fee of \$800 per month. See Cboe's Fees Schedule.

<sup>26</sup> BOX assesses tiered FIX Port Fees as follows: \$500 per port per month for the first FIX Port, \$250 per port per month for FIX Ports 2-5 and \$150 per port per month for over 5 FIX Ports. BOX assesses \$1000 per month for all SAIL Ports for Market Making and \$500 per month per port up to 5 ports for order entry and \$150 per month for each additional port. See BOX's Fee Schedule.

of the proposed fees. While BOX does not offer an order entry port at no cost, it tiers its FIX and SAIL port fees and each subsequent port fee is lower. MIAX port fees<sup>27</sup> are within the range of the proposed fees. MIAX Port users are allocated two (2) Full Service MEI Ports and two (2) Limited Service MEI Ports per matching engine to which they connect.<sup>28</sup> NYSE Arca port fees<sup>29</sup> are within the range of the proposed fees. For each order/quote entry port utilized, NYSE Arca Market Makers may utilize, free of charge, one port dedicated to quote cancellation or “quote takedown,” which port(s) will not be included in the count of order/quote entry ports utilized.<sup>30</sup>

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

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

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<sup>27</sup> MIAX tiers its FIX Port fees as follows: \$550 per month for the 1<sup>st</sup> FIX Port, \$350 per month per port for the FIX Ports 2 through 5 and \$150 per month for over 5 FIX Ports. MIAX tiers its MEI Port Fees and assesses fees per number of classes and as a percentage of National Average Daily Volume. MEI Port fees range from \$5,000 to \$20,500 per month. The applicable fee rate is the lesser of either the per class basis or percentage of total national average daily volume measurement. However, if the Market Maker’s total monthly executed volume during the relevant month is less than 0.060% of the total monthly executed volume reported by The Options Clearing Corporation in the market maker account type for MIAX-listed option classes for that month, then the fee will be \$14,500 instead of the fee otherwise applicable. MIAX will assess monthly MEI Port Fees on Market Makers in each month the Member has been credentialed to use the MEI Port in the production environment and has been assigned to quote in at least one class. See MIAX’s Fee Schedule.

<sup>28</sup> MEI Port Fees include MEI Ports at the Primary, Secondary and Disaster Recovery data centers. MIAX Market Makers may request additional Limited Service MEI Ports for which MIAX will assess MIAX Market Makers \$100 per month per additional Limited Service MEI Port for each engine. See MIAX’s Fee Schedule.

<sup>29</sup> NYSE Arca assesses a tiered order/quote entry port fee of \$450 for the first 40 ports and \$150 per port per month for the 41 ports or greater. For purpose of calculating the number of order/quote entry ports and quote takedown ports, NYSE Arca aggregates the ports of affiliates. See NYSE Arca Options Fees and Charges.

<sup>30</sup> Any quote takedown port utilized by a NYSE Arca Market Maker that is in excess of the number of order/quote entry ports utilized will be counted and charged as an order/quote entry port. See NYSE Arca Options Fees and Charges.

The OTTO protocol is a proprietary protocol of Nasdaq, Inc. The Exchange continues to innovate and modernize technology so that it may continue to compete among options markets. The ability to continue to innovate with technology and offer new products to market participants allows BX to remain competitive in the options space which currently has seventeen options markets and potential new entrants. If BX were unable to offer and price new protocols, it would result in an undue burden on competition as BX would not have the ability to innovate and modernize its technology to compete effectively in the options space. BX's ability to offer OTTO will enable it to compete with other options markets that provide its market participants a choice as to the type of order entry protocols that may be utilized. BX's ability to offer and price new and innovative products and continue to modernize its technology, similar to other options markets, supports intermarket competition.

### **OTTO Protocol**

The Exchange's proposal to adopt an OTTO Protocol does not impose an undue burden on intramarket competition. Today, all BX Participants utilize FIX to send orders to BX. The Exchange would offer each BX Participant the first OTTO Port at no cost with this proposal. With the addition of OTTO Ports, a BX Participant may elect to enter their orders through FIX, OTTO, or both protocols, although both protocols are not necessary. The Exchange's proposal to adopt an OTTO Protocol does not impose an undue burden on intermarket competition as other options exchanges offer multiple protocols today such as ISE, GEMX and MRX.

### **Other Amendments**

The Exchange's proposal to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized does not impose an undue burden on intramarket competition as these rules will apply in the same manner to all Participants. The Exchange's proposal to amend other rules within Options 3 to make clear where the FIX and OTTO protocols may be utilized does not impose an undue burden on intermarket competition as other options exchanges may elect to utilize their order entry protocols in different ways.

### **Pricing**

Nothing in the proposal burdens intermarket competition because BX's proposal to offer the first OTTO Port for free permits BX to set fees, similar to other options markets, while continuing to allow BX Participants to meet their regulatory obligations. BX's proposal would permit BX Participants the ability to submit orders to BX at no cost through OTTO. Additional OTTO Ports are not required for BX Participants to meet their regulatory obligations. The proposed port fees are similar to port fees assessed by other options markets as noted in this proposal. Further, 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. The Exchange notes that while the manner in which an order is sent to the Exchange may have an impact on latency, the difference from a latency standpoint would be in nanoseconds, and it would depend on the manner in which the order is being sent to the Exchange. A market participant sending 30 sequential orders through an OTTO Port may experience a slight latency of certain nanoseconds (less than a few nanoseconds) to permit serialized processing in the port and the match

engine per order in certain cases. This is compared to a BX participant who submits 30 orders through multiple OTTO Ports at the same time. This distinction exists today on other options exchanges that offer market participants the ability to submit order flow in bulk,<sup>31</sup> which results in a larger number of orders being sent to the exchange's match engine in a quicker timeframe as compared to market participants that utilize a port that does not support bulk orders. Also, as noted herein, OTTO Orders do not route and therefore have a lower latency as compared to orders sent via a FIX Port. The Exchange notes that other factors may also contribute to the time it takes for an order to be executed. For example, on an exchange that offers complex orders, such orders with a stock component, may take additional time to execute as compared to a market order. In short, while latency may play a very small factor in the quantity of ports that are being utilized to send an order to the Exchange, all market participants may elect how their order is sent to an exchange. The Exchange notes that there is no correlation between the number of orders executed on the Exchange by a Participant and the number of ports subscribed to by a Participant. There are Participants that subscribe to a larger number of ports that have lower executed volumes on BX than those with half of the number of ports. Also, not all ports subscribed to by a Participant are active. Further, all Participants are entitled to obtain additional OTTO Ports or a mix of OTTO and FIX Ports. The Exchange is providing each Participant the first OTTO Port at no cost. To the

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<sup>31</sup> Cboe offers BOE Bulk Logical Ports. See Cboe's Fee Schedule. See Securities Exchange Act Release No. 90333 (November 4, 2020), 85 FR 71666 (November 10, 2020) (SR-CBOE-2020-105). Cboe amended access and connectivity fees, including port fees. Specifically, Cboe adopted certain logical ports to allow for the delivery and/or receipt of trading messages – i.e., orders, accepts, cancels, transactions, etc. Cboe established tiered pricing for BOE/FIX Logical Ports, with the lowest tier starting at \$750 per port, per month for 1 to 5 ports, and for BOE Bulk Logical Ports with separate tiered pricing starting at \$1,500 per port, per month for 1 to 5 ports. Cboe also established flat prices for DROP, Purge Ports, GRP Ports and Multicast PITCH/Top Spin Server Ports.

extent Participants elect to utilize different technologies and connections to the Exchange, including different numbers and combinations of ports, the Exchange believes that the combinations may result in varying latencies as is the case on all other options exchanges today.

Nothing in the proposal burdens intra-market competition because the Exchange would uniformly assess the OTTO Port fees to all BX Participants, as applicable. Further, other exchanges have increased or added port fees in recent years. As recently as 2020, Cboe amended its port fees.<sup>32</sup> Specifically, Cboe adopted certain logical ports to allow for the delivery and/or receipt of trading messages – i.e., orders, accepts, cancels, transactions, etc. Cboe established tiered pricing for BOE and FIX logical ports, tiered pricing for BOE Bulk ports, and flat prices for DROP, Purge Ports, GRP Ports and Multicast PITCH/Top Spin Server Ports. Cboe argued in its fee proposal that the proposed pricing more closely aligned its access fees to those of its affiliated exchanges, and reasonably so, as the affiliated exchanges offer substantially similar connectivity and functionality and are on the same platform that Cboe migrated to as part of its migration. Cboe also justified its pricing by stating that, “...the Exchange believes substitutable products and services are in fact available to market participants, including, among other things, other options exchanges a market participant may connect to in lieu of the Exchange, indirect connectivity to the Exchange via a third-party reseller of connectivity and/or trading of any options product, including proprietary products, in the Over-the-Counter (OTC) markets.”<sup>33</sup> Cboe stated in its proposal that,

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<sup>32</sup> See Securities Exchange Act Release No. 90333 (November 4, 2020), 85 FR 71666 (November 10, 2020) (SR-CBOE-2020-105).

<sup>33</sup> Id. at 71676.

The rule structure for options exchanges are also fundamentally different from those of equities exchanges. In particular, options market participants are not forced to connect to (and purchase market data from) all options exchanges. For example, there are many order types that are available in the equities markets that are not utilized in the options markets, which relate to mid-point pricing and pegged pricing which require connection to the SIPs and each of the equities exchanges in order to properly execute those orders in compliance with best execution obligations. Additionally, in the options markets, the linkage routing and trade through protection are handled by the exchanges, not by the individual members. Thus not connecting to an options exchange or disconnecting from an options exchange does not potentially subject a broker-dealer to violate order protection requirements. Gone are the days when the retail brokerage firms (such as Fidelity, Schwab, and eTrade) were members of the options exchanges – they are not members of the Exchange or its affiliates, they do not purchase connectivity to the Exchange, and they do not purchase market data from the Exchange. Accordingly, not only is there not an actual regulatory requirement to connect to every options exchange, the Exchange believes there is also no “de facto” or practical requirement as well, as further evidenced by the recent significant reduction in the number of broker-dealers that are members of all options exchanges.<sup>34</sup>

The proposal also referenced the National Market System Plan Governing the Consolidated Audit Trail (“CAT NMS Plan”),<sup>35</sup> wherein the Commission discussed the existence of competition in the marketplace generally, and particularly for exchanges with unique business models. The Commission acknowledged that, even if an exchange were to exit the marketplace due to its proposed fee-related change, it would not significantly impact competition in the market for exchange trading services because these markets are served by multiple competitors.<sup>36</sup> Further, the Commission explicitly stated that “[c]onsequently, demand for these services in the event of the exit of a

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<sup>34</sup> Id. at 71677.

<sup>35</sup> See Securities Exchange Act Release No. 86901 (September 9, 2019), 84 FR 48458 (September 13, 2019) (File No. S7-13-19).

<sup>36</sup> Id.

competitor is likely to be swiftly met by existing competitors.”<sup>37</sup> Finally, the Commission recognized that while some exchanges may have a unique business model that is not currently offered by competitors, a competitor could create similar business models if demand were adequate, and if a competitor did not do so, the Commission believes it would be likely that new entrants would do so if the exchange with that unique business model was otherwise profitable.<sup>38</sup> Cboe concluded that the Exchange is subject to significant substitution-based competitive forces in pricing its connectivity and access fees.<sup>39</sup> Cboe stressed that the proof of competitive constraints does not depend on showing that members walked away, or threatened to walk away, from a product due to a pricing change. Rather, the very absence of such negative feedback (in and of itself, and particularly when coupled with positive feedback) is indicative that the proposed fees are, in fact, reasonable and consistent with the Exchange being subject to competitive forces in setting fees.<sup>40</sup>

MRX recently filed to establish port fees.<sup>41</sup> In SR-MRX-2023-05, MRX proposed to assess no fee for the first FIX Port obtained by an MRX Member and established fees for additional FIX Ports of \$650 per port, per month for each subsequent port beyond the first port. MRX noted in SR-MRX-2023-05 that:

Only MRX Members may utilize ports on MRX. Any market participant that sends orders to a Member would not need to utilize a port. The Member can send all orders, proprietary and agency, through one port to

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<sup>37</sup> Id.

<sup>38</sup> Id.

<sup>39</sup> Id. at 71679.

<sup>40</sup> Id. at 71680.

<sup>41</sup> See Securities Exchange Act No. 96824(February 7, 2023), 88 FR 8975 (February 10, 2023) (SR-MRX-2023-05) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend MRX Options 7, Section 6).

MRX. Members may elect to obtain multiple account numbers to organize their business, however only one account number and one port for orders and one port for quotes is necessary for a Member to trade on MRX. All other ports offered by MRX are not required for an MRX Member to meet its regulatory obligations.

MRX also established fees for OTTO Ports, which ports are identical to the ports being offered on BX, and priced them the same as the proposed OTTO fees for BX. MRX assesses an OTTO Port Fee of \$650 per port, per month, per account number but does not offer the first OTTO Port at no cost because it was offering one FIX Port at no cost for order entry.

If the Commission were to apply a different standard of review to this proposal than it applied to other exchange fee filings, such as the Cboe or MRX fee filings,<sup>42</sup> it would create a burden on competition such that it would impair BX's ability to innovate new products, modernize its technology, and compete with other options markets.

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

No written comments were either solicited or received.

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

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant

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<sup>42</sup> See notes 30 and 39 above.

to Section 19(b)(3)(A)(iii) of the Act<sup>43</sup> and subparagraph (f)(6) of Rule 19b-4 thereunder.<sup>44</sup>

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 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 (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include file number SR-BX-2024-006 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.

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<sup>43</sup> 15 U.S.C. 78s(b)(3)(A)(iii).

<sup>44</sup> 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

All submissions should refer to file number SR-BX-2024-006. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-BX-2024-006 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>45</sup>

**Sherry R. Haywood,**

*Assistant Secretary.*

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<sup>45</sup> 17 CFR 200.30-3(a)(12).

**EXHIBIT 5**

*New text is underlined; deleted text is in brackets.*

**Nasdaq BX, Inc. Rules**

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**Options Rules**

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**Options 3 Options Trading Rules**

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**Section 7. Types of Orders and Quote Protocols**

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(b) The term “Time in Force” or “TIF” shall mean the period of time that the System will hold an order for potential execution, and shall include:

\* \* \* \* \*

(2) “Immediate-or-Cancel” or “IOC” is a Market Order or Limit Order to be executed in whole or in part upon receipt. Any portion not so executed is cancelled.

\* \* \* \* \*

(B) IOC orders may be entered through FIX, OTTO or SQF, provided that an IOC Order entered by a Market Maker through SQF is not subject to the Order Price Protection, the Market Order Spread Protection, or Size Limitation in Options 3, Section 15(a)(1), (a)(2), and (b)(2), respectively;

\* \* \* \* \*

(3) “DAY” is an order entered with a TIF of “Day” that expires at the end of the day on which it was entered, if not executed. All orders by their terms are Day Orders unless otherwise specified. Day orders may be entered through FIX or OTTO.

(4) “Good Til Cancelled” or “GTC” is an order entered with a TIF of “GTC” that, if not fully executed, will remain available for potential display and/or execution unless cancelled by the entering party, or until the option expires, whichever comes first. GTC Orders shall be available for entry from the time prior to market open specified by the Exchange until market close. GTC orders may be entered through FIX.

\* \* \* \* \*

(e) Entry and Display of Orders and Quotes. Participants may enter orders and quotes into the System as specified below.

(1) The Exchange offers Participants the following protocols for entering orders and quotes respectively:

\* \* \* \* \*

(B) “Ouch to Trade Options” or “OTTO” is an interface that allows Members and their Sponsored Customers to connect, send, and receive messages related to orders, auction orders, and auction responses to the Exchange. Features include the following: (1) options symbol directory messages (e.g., underlying and complex instruments); (2) System event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; (6) risk protection triggers and cancel notifications; (7) auction notifications; (8) auction responses; and (9) post trade allocation messages.

([B]C) “Specialized Quote Feed” or “SQF” is an interface that allows Market Makers to connect, send, and receive messages related to quotes, Immediate-or-Cancel Orders, and auction responses into and from the Exchange. Features include the following: (1) options symbol directory messages (e.g., underlying instruments); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) quote messages; (6) Immediate-or-Cancel Order messages; (7) risk protection triggers and purge notifications; (8) opening imbalance messages; (9) auction notifications; and (10) auction responses. The SQF Purge Interface only receives and notifies of purge requests from the Market Maker. Market Makers may only enter interest into SQF in their assigned options series. Immediate-or-Cancel Orders entered into SQF are not subject to the Order Price Protection, Market Order Spread Protection, or Size Limitation Protection in Options 3, Section 15(a)(1), (a)(2), and (b)(2) respectively.

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## Section 8. Options Opening Process

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(1) **Opening Process Cancel Timer.** The Opening Process Cancel Timer represents a period of time since the underlying market has opened, and shall be established and disseminated by the Exchange on its website. If an option series has not opened before the conclusion of the Opening Process Cancel Timer, a Participant may elect to have orders returned by providing written notification to the Exchange. These orders include all non-Good Til Cancelled Orders received over the FIX or OTTO protocol.

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## Section 12. Crossing Orders

(a) **Customer Cross Orders.** Public Customer-to-Public Customer Cross Orders are automatically executed upon entry provided that the execution is at or between the best bid and offer on the Exchange and (i) is not at the same price as a Public Customer Order on the Exchange's limit order book and (ii) will not trade through the NBBO. [Public Customer-to-Public Customer Cross Orders must be entered through FIX.]

\* \* \* \* \*

## Section 17. Kill Switch

(a) BX Options Kill Switch is an optional tool that enables BX Participants to initiate a message(s) to the System to promptly cancel [orders] and restrict their order activity on the Exchange, as described in section (a)(1) below. Participants may submit a Kill Switch request to the System to cancel orders based on certain identifier(s) on [either ]a user [or group ]level (“Identifier”). [Permissible groups must reside within a single broker-dealer.] The System will send an automated message to the BX Participant when a Kill Switch request has been processed by the Exchange’s System.

([i]1) [If orders are cancelled by the BX Participant utilizing the Kill Switch, it will result in the cancellation of all orders requested for the Identifier(s). The BX Participant will be unable to enter additional orders for the affected Identifier(s) until re-entry has been enabled pursuant to section (a)(ii).] A BX Participant may submit a request to the System through FIX or OTTO to cancel all existing orders and restrict entry of additional orders for the requested Identifier(s) on a user level on the Exchange.

([ii]2) [After orders are cancelled by the BX Participant utilizing the ] Once a BX Participant initiates a Kill Switch pursuant to (a)(1) above, the BX Participant will be unable to enter additional orders for the affected Identifier(s) until the BX Participant has made a verbal request to the Exchange and Exchange staff has set a re-entry indicator to enable re-entry. Once enabled for re-entry, the System will send a Re-entry Notification Message to the BX Participant. The applicable Clearing Participant also will be notified of the re-entry into the System after orders are cancelled as a result of the Kill Switch, provided the Clearing Participant has requested to receive such notification.

## Section 18. Detection of Loss of Communication

(a) Definitions [When the SQF Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.]

(1) A "Heartbeat" message is a communication which acts as a virtual pulse between the SQF, OTTO or FIX Port and the Client Application. The Heartbeat message sent by the Participant and subsequently received by the Exchange allows the SQF, OTTO or FIX Port to continually monitor its connection with the Participant.

(2) SQF Port is the Exchange's System component through which Participants communicate their quotes from the Client Application.

(3) OTTO Port is the Exchange's proprietary System component through which Participants communicate their orders from the Client Application.

([3]4) FIX Port is the Exchange's System components through which Participants communicate their orders from the Client Application.

([4]5) Client Application is the System component of the Participant through which the Exchange Participant communicates its quotes and orders to the Exchange.

(6) Session of Connectivity shall mean each time the Participant connects to the Exchange's System. Each new connection, intra-day or otherwise, is a new Session of Connectivity.

(b) When the SQF Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.

(c) When the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to Section 18(f), automatically cancel all orders.

([b]d) When the FIX Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to subparagraph ([d]g), automatically cancel all open orders posted.

([c]e) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph ([a]b) above, to trigger the disconnect and must communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each [session of connectivity] Session of Connectivity to the Exchange. This feature is enabled for each Participant and may not be disabled.

(1) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current [session of connectivity] Session of Connectivity and will then default back to fifteen seconds. The Participant may change the default setting systemically prior to each [session of connectivity] Session of Connectivity.

(2) If a time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant shall persist for each subsequent [session of connectivity]Session of Connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next [session of connectivity]Session of Connectivity.

(f) The default period of “nn” seconds for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. A Participant may determine another time period of “nn” seconds of no technical connectivity, as required in paragraph (c) above, to trigger the disconnect and, if so elected, the removal of orders and communicate that time to the Exchange. The period of “nn” seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for OTTO Ports prior to each Session of Connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(1) If the Participant changes the default number of “nn” seconds, that new setting shall be in effect throughout the current Session of Connectivity and will then default back to fifteen seconds. The Participant may change the default setting prior to each Session of Connectivity.

(2) If the time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant shall persist for each subsequent Session of Connectivity until the Participant either contacts Exchange operations by phone and changes the setting or the Participant selects another time period through the Client Application prior to the next Session of Connectivity.

[(d)g] The default period of “nn” seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of “nn” seconds of no technical connectivity, as required in paragraph ([b]d) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of “nn” seconds may be modified to a number between one (1) second and thirty (30) seconds for FIX Ports prior to each [session of connectivity]Session of Connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(1) If the Participant systemically changes the default number of “nn” seconds, that new setting shall be in effect throughout the current [session of connectivity]Session of Connectivity and will then default back to thirty seconds. The Participant may change the default setting systemically prior to each [session of connectivity]Session of Connectivity.

(2) If the time period is communicated to the Exchange by calling Exchange operations, the number of “nn” seconds selected by the Participant shall persist for each subsequent [session of connectivity]Session of Connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next [session of connectivity]Session of Connectivity.

([e]h) The trigger for the SQF, OTTO and FIX Ports is event and Client Application specific. The automatic cancellation of the BX Options Market Maker’s quotes for SQF Ports and open orders for OTTO and FIX Ports entered into the respective SQF, OTTO or FIX Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other BX Options Market Makers entered into SQF Ports or orders of the same or other Participants entered into the OTTO or FIX Ports via a separate and distinct Client Application.

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**Options 7 Pricing Schedule**

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**Section 3 BX Options Market - Ports and other Services**

The below charges are assessed by BX for connectivity to the BX Options Market.

A port is a logical connection or session that enables a market participant to send inbound messages and/or receive outbound messages from the Exchange using various communication protocols. Fees are prorated for the first month of service under this section. Upon cancellation, participants are required to pay for service for the remainder of the month, regardless of whether it is the first month of service.

An account number shall mean a number assigned to a Participant. Participants may have more than one account number.

(i) The following order and quote protocols are available on BX:

<b>(1) FIX Port Fee<sup>1</sup></b>	\$650 per port, per month, per account number
<b><u>(2) OTTO Port Fee<sup>2</sup></u></b>	<u>\$650 per port, per month, per account number</u>
<b>([2]3) SQF Port Fee</b>	\$500 per port, per month
<b>([3]4) SQF Purge Port Fee</b>	\$500 per port, per month

\* \* \* \* \*

BX does not assess a fee for account numbers.

<sup>1</sup>The maximum monthly fees in the aggregate for FIX Port, CTI Port, FIX DROP Port, BX Depth Port and BX TOP Port Fees will be \$7,500.

<sup>2</sup>BX will waive one OTTO Port fee per BX Participant per month.

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