SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-100582; File No. SR-CboeBZX-2024-071)

July 23, 2024

Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Establish New Logical Ports in Connection with a New Connectivity Offering on its Equity Options Platform

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act")[1] and Rule 19b-4 thereunder,[2] notice is hereby given that on July 17, 2024, Cboe BZX Exchange, Inc. (the "Exchange" or "BZX") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Exchange filed the proposal as a "non-controversial" proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b-4(f)(6) thereunder.[4] 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 the Substance of the Proposed Rule Change

Cboe BZX Exchange, Inc. (the "Exchange" or BZX) proposes to establish new logical ports in connection with a new connectivity offering on its equity options platform.

The text of the proposed rule change is also available on the Exchange's website (http://markets.cboe.com/us/equities/regulation/rule_filings/bzx/), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

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[1]   15 U.S.C. 78s(b)(1).

[2]   17 CFR 240.19b-4.

[3]   15 U.S.C. 78s(b)(3)(A)(iii).

[4]   17 CFR 240.19b-4(f)(6).

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 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

The Exchange proposes to introduce a new connectivity offering for its equity options

platform ("BZX Options").

By way of background, Exchange Members may interface with the Exchange's Trading

System[5] by utilizing either the Financial Information Exchange ("FIX") protocol or the Binary

Order Entry ("BOE") protocol. The Exchange further offers a variety of Logical Ports,[6] which

provide users of those ports with the ability within the Exchange's System to accomplish a

specific function through a connection, such as order entry, data receipt or access to information.

For example, the Exchange currently offers Logical Ports, Purge Ports,[7] and Ports with Bulk

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[5]   The terms "Trading System" and "System" mean the automated trading system used by BZX Options for the trading of options contracts. See Exchange Rule 16.1 "Trading System and System".

[6]   See Exchange Rule 21.1 (l)(2), definition of "logical port." Logical ports include FIX and BOE ports (used for order entry), drop logical port (which grants users the ability to receive and/or send drop copies) and ports that are used for receipt of certain market data feeds.

[7]   Purge Ports provide users the ability to cancel a subset (or all) open orders across Executing Firm ID(s) ("EFID(s)"), Underlying symbol(s), or CustomGroupID(s), across multiple logical ports/sessions. See Securities Exchange Act Release 79956 (February 3, 2017), 82 FR 10102 (February 9, 2017) (SR-BatsBZX-2017-05). See also https://cdn.cboe.com/resources/membership/US_Options_BOE_Specification.pdf and https://cdn.cboe.com/resources/membership/US_Options_FIX_Specification.pdf.

Quoting Capabilities[8] ("Bulk Ports"). By way of further background, each Logical, Purge and Bulk Port corresponds to a single running order handler. Each order handler processes the messages it receives from these ports from the connected Members. This processing includes determining whether the message contains the required information to enter the System, whether the message parameters satisfy port-level (i.e., pre-trade) risk controls, and where to send that message within the System (i.e., to which matching engine[9]). Once an order handler completes the processing of a message, it sends that message to the appropriate matching engine. Currently, all order handlers connect to all matching engines. The Exchange also has multiple matching engines, each of which controls the book for one or more classes of options listed for trading on the Exchange. An order handler processes messages in the order in which it receives them and routes them to matching engines in that same order. A matching engine then handles messages in the order it receives them from all order handlers.

While the Exchange has configured the software and hardware for its order handlers in the same manner, there may be a natural variance in the amount of time it takes individual order handlers to process messages of the same type. Factors that contribute to this differentiation in processing times include the availability of shared resources (such as memory), which is impacted by (among other things) then-current message rates, the number of active symbols (i.e., classes), and recent messages for a symbol. This natural differentiation in processing times inherently may cause some messages to be sent from an order handler to a matching engine

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[8]   See Exchange Rule 21.1 (l)(3), definition of "bulk port." Bulk Ports provide users with the ability to submit and update multiple quote bids and offers in one message through logical ports enabled for bulk-quoting.

[9]   A matching engine is a part of the Exchange's System that processes options quotes and trades on a symbol-by- symbol basis. Some matching engines will process option classes with multiple root symbols, and other matching engines will be dedicated to one single option root symbol (for example, options on SPY will be processed by one single matching engine that is dedicated only to SPY). A particular root symbol may only be assigned to a single designated matching engine. A particular root symbol may not be assigned to multiple matching engines.

ahead of other messages that the Exchange's System may have received earlier on a different order handler.

The Exchange intends to implement a new unitized access architecture and a new version of its Binary Order Entry (BOE) protocol[10] ("BOEv3"). The new unitized access architecture and protocol will result in, among other things, a single gateway per matching engine ("unitized layer"). As such, the Exchange believes the proposed new unitized architecture will render any natural variance of order handler processing irrelevant for Members that connect to the unitized order handler. Particularly, under the new unitized BOEv3 architecture, a single BOEv3 order handler will correspond to a single matching engine and all message traffic (including FIX and current BOEv2[11] port traffic) will pass through this unitized BOEv3 order handler before reaching that order handler's corresponding matching engine. Currently, BOEv2 and FIX protocols allow Members to access all symbols from a single logical port since each port corresponds to a single order handler that conveniently connects to all matching engines (and those to the books for all symbols) ("convenience layer"). Under the new unitized BOEv3 structure, a unitized port type (as defined below) will connect to a single BOEv3 order handler that corresponds to a single matching engine (as compared to a single order handler that corresponds to multiple matching engines).[12] Therefore, a Member will need to obtain separate BOEv3 unitized ports to access each of the unitized order handlers and corresponding matching

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10   The BOE protocol is a proprietary order entry protocol used by Members to connect to the Exchange. The current version is BOEv2.

11   The Exchange anticipates decommissioning BOEv2 in February 2025.

12   Inbound order, quote, modify, and cancel messages originating from any supported Exchange order entry protocol will be deterministically ordered by the BZX System upon arrival at the applicable matching engine corresponding to a particular BOEv3 order handler.

engine(s) that process the symbol(s) that Member desires to trade.[13] More specifically, the Exchange intends to adopt three new and separate port types that would be used to connect directly to the BOEv3 order handlers in the unitized layer: (1) BOE Unitized Ports, (2) Bulk Unitized Ports, and (3) Purge Unitized Ports.[14]

Similar to the Exchange's existing Logical Ports, the proposed BOE Unitized Ports will allow Members to submit orders and quotes. Similar to the Exchange's existing Bulk Ports, the proposed Bulk Unitized Ports, will allow Members to submit and update multiple quote bids and offers in one message. Like the current Bulk Ports, the proposed Bulk Unitized Ports will continue to be particularly useful for Members that provide quotations in many different options.

Similar to the Exchange's existing Purge Ports, the proposed Purge Unitized Ports will be dedicated logical ports that provide the ability to cancel/purge all open orders, or a subset thereof, across multiple logical ports through a single cancel/purge message. Like current Purge Ports, Purge Unitized Ports will solely process purge messages, as opposed to BOE Unitized and Bulk Unitized Ports which each also process additional message types. Purge Unitized Ports will be designed to assist Members, including Market Makers, in the management of, and risk control over, their orders and quotes, particularly if the Member is dealing with a large number of options. For example, if a Member detects market indications that may influence the direction or bias of their quotes the Member may use purge ports, including the proposed Purge Unitized Ports, to reduce uncertainty and to manage risk by purging all quotes in a number of options seamlessly to avoid unintended executions, while continuing to adjust to market conditions. Purge messages received

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[13]   Members will be able to purchase unitized ports individually or may purchase a "set" which will provide the total number of ports needed to connect to each available matching engine.

[14]   The Exchange intends to submit a separate rule filing to adopt monthly fees related to the use of these three new port types.

by the System from Purge Unitized Ports will also be handled by the System in a way that ensures minimum possible latency, thereby providing Members with a faster, more efficient means to have their quotes removed from the System and thus with an enhanced level of risk protection. The operation of the proposed Purge Unitized Ports is described in the Exchange's public technical specifications.[15] Finally, like the currently available Purge Ports, the proposed Purge Unitized Ports are completely voluntary, and no Member is required, or under any regulatory obligation, to utilize them.

2.   Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the "Act") and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.[16] Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)[17] requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to 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 the proposed rule change is consistent with the Section 6(b)(5)[18] requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

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[15]   See US Options Binary Order Entry Version 3 Specification, Appendix B – Architectural Diagram at https://cdn.cboe.com/resources/membership/US_Options_BOE3_Specification.pdf.

[16]   15 U.S.C. 78f(b).

[17]   15 U.S.C. 78f(b)(5).

[18]   Id.

In particular, the Exchange believes the proposed rule change removes impediments to and perfects the mechanism of a free and open market and a national market system and ultimately benefits investors, as it is intended to create a more consistent, deterministic experience for messages once received within the Exchange's System under the proposed new unitized BOEv3 architecture. The Exchange believes this will improve the overall access experience on the Exchange and enable future system enhancements. The Exchange expects the new BOEv3 protocol and architecture, along with the three new corresponding proposed unitized port types (i.e., BOE Unitized, Bulk Unitized and Purge Unitized ports), to reduce the natural variance of order handler processing times for messages, and as a result reduce the potential resulting "reordering" of messages when they are sent from order handlers to matching engines. As described above, under the current BOEv2 and FIX protocols, Members can access all symbols from a single port. However, due to a variety of factors that result in natural variances, under these current protocols and architecture, messages may be processed naturally faster by one order handler than by another order handler and therefore are less deterministic, which may result in potential "reordering". The proposal to adopt the unitized BOEv3 structure (including the corresponding new Unitized Ports) is a technical solution that is intended to reduce the potential of this reordering and increase determinism. The Exchange also notes that Members may choose to not use the proposed new unitized ports at all, as such ports will not be the exclusive means for trading on the Exchange. Particularly firms may continue to choose to use the existing logical ports through the FIX and BOE protocols under the convenience layer, in lieu of, or in addition to, the proposed unitized ports (and thus continue to use FIX and BOE ports in

the manner they do today).[19] The Exchange also notes that at least one other exchange appears to also maintain both a unitized and convenience architecture.[20]

The Exchange further believes that the proposed Purge Unitized (like current Purge Ports) will promote just and equitable principles of trade and remove impediments to and perfect the mechanism of a free and open market because offering this option service promotes choice, flexibility, and efficiency. Moreover, the proposed operation of Purge Unitized Ports can enhance Market Makers' ability to manage quotes, which would, in turn, improve their risk controls and liquidity provision to the benefit of all market participants. The Exchange believes that proper risk management, including the ability to efficiently cancel multiple quotes quickly when necessary is valuable to all firms, including Market Makers that have heightened quoting obligations[21] that are not applicable to other market participants. This may also be especially critical for those market participants that conduct business activity that exposes them to a large amount of risk across a

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[19]   As noted above, the Exchange intends to decommission the current BOEv2 protocol shortly after implementation of BOEv3 protocol. Users will still be able to connect to the Exchange using existing BOE logical ports through the updated BOEv3 protocol under the convenience layer in lieu of the existing BOEv2 logical ports.

[20]   See MIAX Express Interface for Quoting and Trading Options, MEI Interface Specification, Section 1.2 (MEI Architecture) available at: MIAX_Express_Interface_MEI_v2.10a.pdf (miaxglobal.com) which indicates firms can connect directly to one or more matching engines depending on which symbols they wish to trade and states "MIAX trading architecture is highly scalable and consists of multiple trade matching environments (clouds). Each cloud handles trading for all options for a set of underlying instruments" and provides that "Market Maker firms can connect to one or more pre-assigned servers on each cloud. This will require the firm to connect to more than one cloud in order to quote in all underlying instruments they are approved to make markets in" See also MIAX Emerald Options Order Management Using FIX Protocol, FIX Interface Specification, available at https://www.miaxglobal.com/sites/default/files/page-files/FIX_Order_Interface_FOI_v2.6c.pdf. MIAX describes its FIX Order Interface Gateway as "a high-speed FIX Order Interface gateway [that] conveniently routes orders to our trading engines through a common entry point to our trading platform." See https://www.miaxglobal.com/markets/us-options/miax-options/interface-specifications.

[21]   The proposed rule change will not relieve Market Makers of their quoting obligations or firm quote obligations under Regulation NMS Rule 602. 17 CFR 242.602. Market Makers that purge their orders will not be relieved of the obligation to provide continuous two-sided quotes on a daily basis, nor is the Exchange prohibited from taking disciplinary action against a Market Maker for failing to meet their continuous quoting obligation each trading day. See Exchange Rule 22.6. See also generally Chapter XXII of the Exchange's rules.

number of securities. Finally, like the currently available Purge Ports, the proposed Purge Unitized Ports are completely voluntary, and no Member is required or under any regulatory obligation to utilize them. Market Makers will also continue to have the ability to cancel individual quotes through existing functionality, such as through the use of a mass cancel message by which a Market Maker may request that the Exchange remove all or a subset of its quotations and block all or a subset of its new inbound quotations.[22] As a result, Market Makers can currently cancel quotes in rapid succession across their existing logical ports or through a single cancel message, all open quotes or a subset of open quotes. The Exchange also notes that similar connectivity and purge functionality are offered by other exchanges.[23]

        B.   <u>Self-Regulatory Organization's Statement on Burden on Competition</u>

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. Particularly, the Exchange believes the proposed rule change does not impose any burden on intra-market competition that is not necessary or appropriate in furtherance of the purposes of the Act because the proposed BOEv3 structure changes (and corresponding new unitized logical ports) will be available to all Users. While the Exchange believes that the proposed new structure and corresponding BOE Unitized Ports and Bulk Unitized Ports provide a valuable service, Members will be able to choose to purchase, or not purchase, the proposed logical ports based on their own determination of the value and their business needs. Indeed, no Member will be currently required or under any regulatory obligation to use unitized ports and may continue to

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[22]   <u>See</u> Exchange Rule 22.11.

[23]   <u>See e.g.,</u> Securities Exchange Act Release 81252 (July 28, 2017), 82 FR 36172 (August 3, 2017) (SR-MIAX-2017-36); <u>see also</u> Priority Mass Cancel Ports, MIAX Express Interface for Quoting and Trading Options, <u>available at</u>: <u>MIAX_Express_Interface_MEI_v2.10a.pdf (miaxglobal.com)</u>. <u>See also</u> Securities Exchange Act Release 81095 (July 7, 2017), 82 FR 32409 (July 13, 2017) (SR-ISE-2017-62).

use existing FIX and BOE logical ports that connect through FIX and BOE order handlers under the convenience layer.[24]

The Exchange also does not believe that the proposed Purge Unitized Ports will impose any burden on competition that is not necessary or appropriate in furtherance of the Act. First, as is the case with existing Purge Ports, all Members are allowed to purchase Purge Unitized Ports, although the Exchange anticipates Market Makers to be the primary user of such ports. Unlike other market participants, Market Makers have a heightened obligation on the Exchange to maintain a continuous two-sided market. As such, Market Makers have an obligation to provide continuous quotes for a large number of series. The volume of quotes that the Market Maker has in the market directly correlates to the Market Maker's risk exposure. Other Members by contrast, generally only send orders to the Exchange and do not have similar obligations. The Exchange believes providing Market Makers with an additional risk management tool is a reasonable means to better manage their quoting risk while still enabling them to meet their heightened quoting obligations.

Additionally, nothing in the proposal imposes any burden on the ability of other exchanges to compete. The Exchange operates in a highly competitive market in which exchanges offer various connectivity services as a means to facilitate the trading and other market activities of those market participants. The Exchange believes the proposed Purge Unitized Ports will also enhance competition as similar connectivity and purge functionality is offered by other exchanges.[25]

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[24]   Supra note 19.

[25]   Id.

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

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

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

Because the foregoing proposed rule change does not:

A. significantly affect the protection of investors or the public interest;

B. impose any significant burden on competition; and

C. 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 to Section 19(b)(3)(A) of the Act[26] and Rule 19b-4(f)(6)[27] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

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

Electronic Comments:

- Use the Commission's internet comment form (https://www.sec.gov/rules/sro.shtml); or

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[26] 15 U.S.C. 78s(b)(3)(A).

[27] 17 CFR 240.19b-4(f)(6).

- Send an email to rule-comments@sec.gov. Please include file number SR-CboeBZX-2024-071 on the subject line.

<u>Paper Comments:</u>

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

All submissions should refer to file number SR-CboeBZX-2024-071. 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-CboeBZX-2024-071 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.[28]

Sherry R. Haywood,

Assistant Secretary.

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[28]   17 CFR 200.30-3(a)(12).