



SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-95807; File No. SR-MRX-2022-16]

Self-Regulatory Organizations; Nasdaq MRX, LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Amend Certain Rules in Connection with a Technology Migration to Enhanced Nasdaq Functionality

September 16, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b-4 thereunder,² notice is hereby given that on September 9, 2022, Nasdaq MRX, LLC (“MRX” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I and II 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 amend certain rules in connection with a technology migration to enhanced Nasdaq, Inc. (“Nasdaq”) functionality.

The text of the proposed rule change is available on the Exchange’s Website at <https://listingcenter.nasdaq.com/rulebook/mrx/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 the places specified in

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

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

In connection with a technology migration to enhanced Nasdaq functionality that will result in higher performance, scalability, and more robust architecture, the Exchange proposes to amend its rules to adopt certain trading functionality currently utilized at Nasdaq BX, Inc. (“BX”). As further discussed below, the Exchange is proposing to adopt such functionality substantially in the same form as currently on BX, while retaining certain intended differences between it and its affiliates.

The Exchange intends to begin implementation of the proposed rule change in Q4 2022. MRX would commence its implementation with a limited symbol migration and continue to migrate symbols over several weeks. The Exchange will issue an Options Trader Alert to Members to provide notification of the symbols that will migrate and the relevant dates.

Re-Pricing

In connection with the technology migration, the Exchange proposes to adopt re-pricing functionality in Options 3, Section 4 and Section 5 for certain orders and quotes that lock or cross an away market’s price. The proposed functionality will be materially identical to current BX functionality.³ As further described below, the Exchange proposes a number of corresponding amendments throughout Options 2 and Options 3 in connection with adopting the re-pricing mechanism.

³ Today, BX re-prices certain orders and quotes to avoid locking and crossing away markets, consistent with its Trade-Through compliance and Locked or Crossed Markets obligations. See BX Options 3, Sections 4(b)(6) and 5(d). See also Securities Exchange Act Release No. 89476 (August 4, 2020), 85 FR 48274 (August 10, 2020) (SR-BX-2020-017) (describing BX re-pricing mechanism in BX Options 3, Section 5). In addition to re-pricing, MRX also permits Members to cancel their quotes by configuration.

The Exchange notes that today, it would cancel any unexecuted balances of non-routable orders that cannot be placed on the order book.⁴ With the technology migration, any unexecuted balances may rest on the order book as the Exchange would re-price an order that locks or crosses another market as described in this proposal.

As proposed, the System will re-price certain orders to avoid locking or crossing an away market's price. Orders that are designated as non-routable and that lock or cross an away market price will be automatically re-priced to the current national best offer (for bids) or the current national best bid (for offers) as non-displayed and displayed one minimum price variance ("MPV") above (for offers) or below (for bids) the national best price.⁵ Upon re-pricing in this manner, such order will be displayed on OPRA at one MPV above (for offers) or below (for bids) the national best price. The order will remain on the Exchange's order book and will be accessible at the non-displayed price. For example, a non-displayed limit order may be accessed on the Exchange by a Member if the limit order is priced better than the NBBO. The following example illustrates how the proposed re-pricing mechanism would work:

⁴ Today, this would include cancelling unexecuted balances of non-routable orders after following the procedures set forth in Supplementary Material .02 to Options 5, Section 2.

⁵ The Exchange notes that other rules may cause a routable or non-routable order to re-price in the manner described above. For example, the Exchange will introduce a FIND routing strategy with the technology migration. Orders marked as FIND (i.e., "FIND Orders") are routable in nature but could, in certain specified scenarios, re-price and be treated as a non-routable order in such cases. See e.g., Options 5, Section 4(a)(iii)(B)(4) (effective but not yet operative), which provides that a FIND Order received after an Opening Process that is marketable against the BBO when the ABBO is inferior to the BBO will be traded on the Exchange at or better than the BBO price. If the FIND Order has size remaining after exhausting the BBO, it may: (1) trade at the next BBO price (or prices) if the order price is locking or crossing that price (or prices) up to and including the ABBO price, (2) be entered into the Order Book at its limit price, or (3) if locking or crossing the ABBO, be entered into the Order Book at the ABBO price and displayed one MPV away from the ABBO. The FIND Order will be treated as DNR for the remainder of the trading day, even in the event that there is a new Opening Process after a trading halt. See also Securities Exchange Act Release No. 94897 (May 12, 2022), 87 FR 30294 (May 18, 2022) (SR-ISE-2022-11) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Amend Routing Functionality in Connection With a Technology Migration, including to adopt FIND Orders) ("Routing Filing"). The changes proposed in the Routing Filing will become operative at the same time as this proposal.

Symbol ABCD in a Non-Penny name

CBOE BBO at 1.00 x 1.20

DNR order to buy ABCD for 1.30 arrives

DNR buy order books at 1.20 (current national best offer) and displays at 1.15 (one MPV below national best offer)*

*OPRA will show the displayed price, not the booked non-displayed price

In order to effectuate the foregoing changes, the Exchange proposes to amend Options 3, Section 5(c), which currently provides that the System automatically executes eligible orders using the Exchange's displayed best bid and offer ("BBO"). As amended, Options 3, Section 5(c) would provide that the System automatically executes eligible orders using the Exchange's displayed best bid and offer (i.e., BBO) or the Exchange's non-displayed order book ("internal BBO")⁶ if the best bid and/or offer on the Exchange has been re-priced pursuant to Options 3, Section 5(d). The proposed definition of an internal BBO, which will be identical to BX's definition of internal BBO in BX Options 3, Section 5(c), will cover re-priced orders that remain on the order book and are available at non-displayed prices while resting on the order book. The proposed re-pricing itself will be described in Options 3, Section 5(d). Currently, Options 3, Section 5(d) describes Trade-Through Compliance and Locked or Crossed Market behavior, and further provides that an order that is designated by the Member as routable would be routed in compliance with applicable Trade-Through and Locked and Crossed Markets restrictions.⁷ The Exchange proposes to add rule text within Options 3, Section 5(d) to describe the manner in which a non-routable order would be re-priced. Specifically, the Exchange proposes to state,

⁶ A non-displayed order price is not visible to any market participants other than the submitting market participant until such order executes and becomes visible at that time to all market participants.

⁷ Options 3, Section 5(d) also currently provides that orders that are not automatically executed will be handled as provided in Supplementary Material .02 to Options 5, Section 2; provided that Members may specify that a Non-Customer order should instead be cancelled automatically by the System at the time of receipt.

“An order that is designated by a Member as non-routable will be re-priced in order to comply with applicable Trade-Through and Locked and Crossed Markets restrictions. If, at the time of entry, an order that the entering party has elected not to make eligible for routing⁸ would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) as non-displayed, and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.” The Exchange believes that the addition of this language, substantially similar to language within BX Options 3, Section 5(d),⁹ will provide Members with additional information as to the manner in which orders are handled by the System when those orders would lock or cross an away market. Identical to BX, the Exchange is specifying that the re-price would occur “at the time of entry” to avoid a locked or crossed market violation or a trade-through violation.¹⁰

With respect to quotes, today as set forth in Options 3, Section 4(b)(6), if, at the time of entry, a quote would cause a locked or crossed market violation or would cause a trade-through violation, it will either be re-priced and displayed at one MPV above (for offers) or below (for bids) the national best price or immediately cancelled, as configured by the Member. The Exchange now proposes to amend the quote re-pricing mechanism currently described in MRX

⁸ As noted above, FIND Orders (which are inherently routable but could then become non-routable in specified circumstances) may also be re-priced. See supra note 5.

⁹ Currently, BX Options 3, Section 5(d), in relevant part, provides that “[I]f, at the time of entry, an order that the entering party has elected not to make eligible for routing would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.” BX intends to make a clarifying change in a separate rule filing to align its rule text with proposed MRX Options 3, Section 5(d) to also indicate that BX will re-price to the current national best price *as non-displayed*.

¹⁰ After the re-price under Options 3, Section 5(d), continuous re-pricing could take place pursuant to Options 5, Section 4 if the away market price fades to inferior prices and the re-priced order can move closer to its original limit price. See supra note 5.

Options 3, Section 4(b)(6) by harmonizing it with BX Options 3, Section 4(b)(6).¹¹ As amended, the quote re-pricing language in Options 3, Section 4(b)(6) would provide: “If, at the time of entry, a quote would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) as non-displayed, and displayed at one minimum price variance above (for offers) or below (for bids) the national best price, or immediately cancelled, as configured by the Member.” As reflected in the foregoing, the difference between the current and proposed re-pricing is that the Exchange will re-price to the current national best price under the proposal and book non-displayed at this price (i.e., the current national best price). Upon re-pricing in this manner, the order would then be displayed one MPV inferior to the national best price. In contrast, today, the Exchange re-prices and books as displayed one MPV inferior to the national best price. The proposed process is identical to how BX quote re-pricing works today.¹²

In connection with the introduction of the BX-like quote re-pricing mechanism, the Exchange also proposes to add the definition of internal BBO (similar to the proposed definition of internal BBO for order re-pricing) in new subsection (7) of Options 3, Section 4(b) for quote re-pricing. Specifically, subsection (7) will provide that the System automatically executes eligible quotes using the Exchange’s displayed best bid and offer (i.e., BBO) or the Exchange’s non-displayed order book (i.e., internal BBO) if the best bid and/or offer on the Exchange has been re-priced pursuant to Options 3, Section 5(d) and Options 3, Section 4(b)(6). The proposed addition is intended to make clear that quotes may now be executed using either the BBO or

¹¹ BX Options 3, Section 4(b)(6) provides that a quote will not be executed at a price that trades through another market or displayed at a price that would lock or cross another market. If, at the time of entry, a quote would cause a locked or crossed market violation or would cause a trade-through, violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price. BX intends to make a clarifying change in a separate rule filing to align its rule text with proposed MRX Options 3, Section 4(b)(6) to also indicate that it will re-price to the current national best price *as non-displayed*.

¹² See supra note 11.

internal BBO, similar to how orders may now be executed with the proposed re-pricing changes.¹³ The Exchange will also make a technical amendment to renumber current subsection (7) of Options 3, Section 4(b) to new subsection (8).

In connection with the foregoing changes, the Exchange proposes to add references to “internal BBO” throughout its rules to closely conform with the concept of re-pricing at an internal BBO as proposed in Options 3, Sections 4(b)(6), 4(b)(7), 5(c) and 5(d). First, the Exchange proposes to add references to the internal BBO in Options 2, Section 10(a), which currently describes Preferred Market Makers¹⁴ and Preferred Orders.¹⁵ The Exchange proposes to amend paragraph (a)(3) of Options 2, Section 10, which currently stipulates that a Preferred Market Maker must be quoting at the NBBO at the time the Preferred Order is received in order to be entitled to the Preferred Market Maker allocation set forth in Options 3, Section 10(c)(1)(C). As amended, the Rule will provide that if the Preferred Market Maker is quoting at the *better of the internal BBO or the NBBO* at the time the Preferred Order is received, the allocation procedure described in Options 3, Section 10(c)(1)(C) shall be applied to the execution of the Preferred Order. The proposal to use the term “better of the internal BBO or the NBBO” will conform to the concept of re-pricing at an internal BBO as proposed in Options 3, Sections 4(b)(6), 4(b)(7), 5(c) and 5(d), and will make clear that the Preferred Market Maker must now be quoting at the better of the NBBO or internal BBO to be entitled to the

¹³ While BX’s quote re-pricing rule does not explicitly reference the term “internal BBO,” BX describes the re-pricing of quotes in BX Options 3, Section 4(b)(6) and also currently operates identically to how MRX is proposing for quotes in MRX Options 3, Section 4(b)(7) (the BX system automatically executes eligible quotes using BX’s displayed best bid and offer (i.e., BX BBO) or BX’s non-displayed order book (i.e., internal BX BBO) if the best bid and/or offer on BX has been re-priced pursuant to BX Options 3, Section 5(d) and BX Options 3, Section 4(b)(6). BX intends to file a separate rule change to add this clarification in BX Options 3, Section 4.

¹⁴ A Preferred Market Maker may be the Primary Market Maker appointed to the options class or any Competitive Market Maker appointed to the options class. See Options 2, Section 10(a).

¹⁵ A Preferred Order is an order designated to a Preferred Market Maker. See Options 2, Section 10.

Preferred Market Maker allocation.¹⁶ Today, BX has similar language governing its Directed Market Makers (“DMMs”) (analogous to the Exchange’s Preferred Market Makers), which requires Directed Market Makers to be quoting at the better of the internal BBO or the NBBO in order to receive the Directed Market Maker allocation entitlement.¹⁷ The Exchange also proposes a corresponding change in paragraph (a)(2) of Options 2, Section 10, which currently states that if the Preferred Market Maker is not quoting at a price equal to the NBBO at the time the Preferred Order is received, the allocation procedure described in Options 3, Section 10(c)(1)(C) shall not be applied to the execution of the Preferred Order. Specifically, the Exchange proposes that the Preferred Market Maker will not be entitled to the allocation in Options 3, Section 10(c)(1)(C) if the Preferred Market Maker is not quoting at a price equal to *or better than the better of the internal BBO or the NBBO* at the time the Preferred Order is received.

Second, the Exchange proposes to add the concept of “better of the internal BBO or the NBBO” in Options 3, Section 10(c)(1)(B), which currently sets forth an enhanced Primary Market Maker allocation entitlement. As amended, Options 3, Section 10(c)(1)(B) will provide that after all Priority Customer orders have been fully executed, provided the Primary Market Maker's quote is at the *better of the internal BBO or the NBBO*, the Primary Market Maker shall be entitled to receive the allocation described in Options 3, Section 10(c)(1)(B)(i), unless the incoming order to be allocated is a Preferred Order and the Primary Market Maker is not the Preferred Market Maker, in which case allocation would be pursuant to (c)(1)(C). The proposed changes will conform to the concept of re-pricing at an internal BBO as proposed in Options 3, Sections 4(b)(6), 4(b)(7), 5(c) and 5(d), and will make clear that the Primary Market Maker must now be quoting at the better of the NBBO or internal BBO to be entitled to the enhanced Primary

¹⁶ As discussed below, the Exchange is proposing corresponding changes in the Preferred Market Maker allocation rule in Options 3, Section 10(c)(1)(C).

¹⁷ See BX Options 2, Section 10(a)(1).

Market Maker allocation. The Exchange notes that Nasdaq Phlx LLC (“Phlx”) has similar language in Phlx Options 3, Section 10 governing Lead Market Maker (“LMM”) (analogous to the Exchange’s Primary Market Maker) allocation.¹⁸ The Exchange also proposes to correct a citation in Options 3, Section 10(c)(1)(B)(i)(b) from subparagraph (a)(1)(E) to subparagraph (c)(1)(E).

Third, the Exchange proposes to add the concept of “better of the internal BBO or the NBBO” in Options 3, Section 10(c)(1)(C), which currently sets forth Preferred Market Maker allocation entitlement. As amended, Options 3, Section 10(c)(1)(C) will provide that after all Priority Customer orders have been fully executed, upon receipt of a Preferred Order pursuant to Supplementary .01 to Options 3, Section 10, provided the Preferred Market Maker's quote is at the *better of the internal BBO or the NBBO*, the Preferred Market Maker will be afforded a participation entitlement. The proposed changes will conform to the concept of re-pricing at an internal BBO as proposed in Options 3, Sections 4(b)(6), 4(b)(7), 5(c) and 5(d), and will make clear that the Preferred Market Maker must now be quoting at the better of the NBBO or internal BBO to be entitled to the Preferred Market Maker allocation. The Exchange notes that Phlx has similar language in Phlx Options 3, Section 10 governing DMM allocation.¹⁹

Fourth, the Exchange proposes to add the concept of “better of the internal BBO or the NBBO” throughout Options 3, Section 10(c)(1)(D), which currently sets forth the Primary Market Maker allocation entitlement for orders of five (5) contracts or fewer. As amended, subparagraph (i) of Options 3, Section 10(c)(1)(D) will provide that a Primary Market Maker is entitled to priority with respect to Orders of 5 Contracts or Fewer if the Primary Market Maker has a quote at the *better of the internal BBO or the NBBO* with no other Priority Customer or Preferred Market Maker interest present which has a higher priority, including when the Primary Market Maker is also the Preferred Market Maker. As amended, subparagraph (ii) of

¹⁸ See Phlx Options 3, Section 10(a)(1)(B).

¹⁹ See Phlx Options 3, Section 10(a)(1)(C).

Options 3, Section 10(c)(1)(D) will provide that if the Primary Market Maker is quoting at the *better of the internal BBO or the NBBO* and the Primary Market Maker is also the Preferred Market Maker or there is no Preferred Market Maker quoting at the *better of the internal BBO or the NBBO*, and a Priority Customer has a higher priority at the time of execution, the Priority Customer will be allocated the Orders of 5 Contracts or Fewer up to their displayed size pursuant Options 3, Section 10(c)(1)(A) and if contracts remain, the Primary Market Maker will be allocated the remainder. As amended, subparagraph (iii) of Options 3, Section 10(c)(1)(D) will provide that if the Primary Market Maker is quoting at the *better of the internal BBO or the NBBO* and no Priority Customer has a higher priority at the time of execution and a Preferred Market Maker, who is not a Primary Market Maker, is quoting at the *better of the internal BBO or the NBBO* then allocation shall proceed according to Section 10(c)(1)(C). The proposal will conform to the concept of re-pricing at an internal BBO as proposed in Options 3, Sections 4(b)(6), 4(b)(7), 5(c) and 5(d). The Exchange notes that BX has similar language in BX Options 3, Section 10 governing LMM allocation entitlement for orders of five (5) contracts or fewer.²⁰

Opening Process

In connection with the technology migration, the Exchange proposes to amend its Opening Process in Options 3, Section 8 to adopt language that conforms to the proposed re-pricing structure. The Exchange proposes to amend Options 3, Section 8(j)(6)(i) to reflect the new BX-like re-pricing that it is proposing to adopt, as described in the re-pricing section above. Currently, Section 8(j)(6)(i) stipulates that for contracts that are not routable, pursuant to Options 3, Section 8(j)(6), the System would cancel (1) any portion of the DNR order that would otherwise have to be routed to the exchange(s) disseminating the ABBO for an opening to occur, or (2) any order or quote that is priced through the Opening Price.²¹ All other interest would remain in the System and be eligible for trading after opening. As it relates to DNR order

²⁰ See BX Options 3, Section 10(a)(1)(C)(2)(iii).

²¹ The Opening Price is described in Options 3, Sections 8(h) and (j).

handling, this reflects current System behavior where the Exchange would cancel any unexecuted balances of a non-routable order that cannot be placed on the order book because the residual interest would lock or cross an away market. With the technology migration, such unexecuted balances may rest on the order book as the Exchange would instead re-price the non-routable order that locks or crosses an away market to align to current BX re-pricing functionality. Accordingly, the Exchange proposes to replace the current rule text in Section 8(j)(6)(i) with the following: “Pursuant to Options 3, Section 8(j)(6), the System will re-price DNR Orders (that would otherwise have to be routed to the exchange(s) disseminating the ABBO for an opening to occur) to the current away best offer (for bids) or the current away best bid (for offers) as non-displayed, and display at a price that is one minimum trading increment inferior to the ABBO, and disseminate such DNR Order as part of the new BBO.” Proposed Section 8(j)(6)(i) will further provide that the System will cancel any order or quote that is priced through the Opening Price, and that all other interest will be eligible for trading after the opening. This would reflect that the Exchange will continue to cancel any interest priced through the Opening Price, and to keep all other interest in the System for trading after opening. Proposed Options 3, Section 8(j)(6)(i) is substantially similar to BX Options 3, Section 8(k)(4) and (5), and will bring greater transparency in how non-routable orders will be handled in the Opening Process.²²

Auction Mechanisms

Facilitation and Solicited Order Mechanisms

²² BX Options 3, Sections 8(k)(4) and (5) provide that “[P]ursuant to Options 3, Section 8(k)(3)(F), the System will re-price Do Not Route Orders (that would otherwise have to be routed to the exchange(s) disseminating the ABBO for an opening to occur) to a price that is one minimum trading increment inferior to the ABBO, and disseminate the re-priced DNR Order as part of the new BBO. The System will cancel any order or quote that is priced through the Opening Price. All other interest will be eligible for trading after opening.” BX intends to align its rule to proposed MRX Options 3, Section 8(j)(6)(i) in a separate rule filing to clarify that DNR Orders in the BX opening process can re-price *to the current ABBO as non-displayed*, and *display* at a price that is one MPV inferior to the ABBO.

The Exchange proposes to amend Options 3, Section 11 (Auction Mechanisms) to modify the entry checks for the Exchange’s Facilitation Mechanism²³ and Solicited Order Mechanism²⁴ to reflect the BX-like re-pricing changes under this proposal by introducing the concept of an internal BBO.²⁵ As discussed in the re-pricing section above, the Exchange proposes to re-price orders that would otherwise lock or cross an away market.²⁶ Specifically, an order will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) as non-displayed and displayed at one MPV above (for offers) or below (for bids) the national best price.²⁷ With this re-pricing, an Exchange order could be available at a price that is better than the NBBO, but is non-displayed (i.e., the Exchange’s non-displayed order book or “internal BBO”). Accordingly, the Exchange proposes to add the concept of “internal BBO” in the order entry checks for the Facilitation and Solicited Order Mechanisms in Options 3, Sections 11(b)(1) and (d)(1), respectively, to account for a non-displayed better price that may be available on the Exchange order book.

In particular, the Exchange proposes to add the concept of “internal BBO” in Options 3, Section 11(b)(1), which currently sets forth the entry checks for the Exchange’s Facilitation Mechanism. As amended, the Rule will provide that orders must be entered into the Facilitation Mechanism at a price that is (A) equal to or better than the NBBO *and the internal BBO* on the

²³ The Facilitation Mechanism is a process by which an Electronic Access Member can execute a transaction wherein the Electronic Access Member seeks to facilitate a block-size order it represents as agent, and/or a transaction wherein the Electronic Access Member solicited interest to execute against a block-size order it represents as agent. See Options 3, Section 11(b).

²⁴ The Solicited Order Mechanism is a process by which an Electronic Access Member can attempt to execute orders of 500 or more contracts it represents as agent against contra orders that it solicited. See Options 3, Section 11(d).

²⁵ As discussed later in the filing, while BX does not have a Facilitation or Solicited Order Mechanism like MRX, BX currently considers the internal BBO in its price improvement auction (“PRISM”) in a similar manner as being proposed for the MRX Facilitation and Solicited Order Mechanisms.

²⁶ See supra notes 5 and 8.

²⁷ See proposed Options 3, Section 5(d). See supra notes 5 and 8.

same side of the market as the agency order unless there is a Priority Customer order on *the BBO or the internal BBO on the same side of the market as the agency order*, in which case the order must be entered at an improved price *over the Priority Customer order*; and (B) equal to or better than the ABBO on the opposite side.²⁸ The proposal will make clear that with the introduction of the re-pricing mechanism in proposed Options 3, Section 5(d), the System will now check orders entered into the Facilitation Mechanism against the internal BBO as well. In addition, the proposed changes will clarify that the Facilitation order must be entered at an improved price over the Priority Customer order where there is a Priority Customer order on the same side BBO or internal BBO. By way of example, the below examples demonstrates how the internal BBO would operate in the Facilitation Mechanism.

Facilitation passes entry validation equal to or better than the NBBO and internal BBO on the same side of the market

Assume the following:

MIAX BBO: 3.10 x 3.20

MRX BBO 3.05 x 3.25

Non-Priority Customer DNR order to buy for 3.25 arrives at MRX; books at 3.20 non-displayed and re-prices/displays at 3.15

MRX Internal BBO: 3.20 x 3.25

NBBO: 3.15 x 3.20

Facilitation to buy @ 3.20 arrives and is able to begin because the Facilitation Agency side price is at or better than the NBBO and internal BBO on the same side of the market and at or better than the ABBO on the opposite side of the market.

²⁸ The Facilitation Mechanism does not check the Exchange best bid or offer on the opposite side of the market because any interest that is available on the opposite side of the market would allocate against the Facilitation Agency Order and provide price improvement.

Facilitation fails entry validation equal to or better than the NBBO and internal BBO on the same side of the market

Assume the following:

MIAX BBO: 3.10 x 3.20

MRX BBO 3.05 x 3.25

Non-Priority Customer DNR order to buy for 3.25 arrives at MRX; books at 3.20 non-displayed and re-prices/displays at 3.15

MRX Internal BBO: 3.20 x 3.25

NBBO: 3.15 x 3.20

Facilitation to buy @ 3.15 arrives and is rejected because the Facilitation Agency side price is not at or better than the internal BBO on the same side of the market.

Similarly, the Exchange proposes to add the concept of “internal BBO” in Options 3, Section 11(d)(1), which currently sets forth the entry checks for the Exchange’s Solicited Order Mechanism. As amended, the Rule will provide that orders must be entered into the Solicited Order Mechanism at a price that is equal to or better than the NBBO *and the internal BBO* on both sides of the market; provided that, if there is a Priority Customer order on the *BBO or internal BBO*, the order must be entered at an improved price *over the Priority Customer order*. Similar to the proposed changes for the Facilitation Mechanism, the proposal will make clear that with the introduction of the re-pricing mechanism in proposed Options 3, Section 5(d), the System will now check orders entered into the Solicited Order Mechanism against the internal BBO as well. In addition, the proposed changes will clarify that the order entered into the Solicited Order Mechanism must be entered at an improved price over the Priority Customer order where there is a Priority Customer order on either side of the BBO or internal BBO. By way of example, the below examples demonstrates how the internal BBO would operate in the Solicited Order Mechanism.

Solicitation passes entry validation equal to or better than the NBBO and internal BBO on both sides of the market

MIAX BBO: 3.10 x 3.20

MRX BBO 3.05 x 3.25

Non-Priority Customer DNR order to sell for 3.05 arrives at MRX; books at 3.10 non-displayed and re-prices/displays at 3.15

MRX Internal BBO: 3.05 x 3.10

NBBO: 3.10 x 3.15

Solicitation to buy @ 3.10 arrives and is able to begin because the Solicitation Agency side price is at or better than the NBBO and internal BBO on both sides of the market.

Solicitation fails entry validation equal to or better than the NBBO and internal BBO on both sides of the market.

MIAX BBO: 3.10 x 3.20

MRX BBO 3.05 x 3.25

Non-Priority Customer DNR order to sell for 3.05 arrives at MRX; books at 3.10 non-displayed and re-prices/displays at 3.15

MRX Internal BBO: 3.05 x 3.10

NBBO: 3.10 x 3.15

Solicitation to buy @ 3.15 arrives and is rejected because the Solicitation Agency side price is not at or better than the internal BBO on both sides of the market.

Lastly, the Exchange proposes a clarifying change in Options 3, Section 11(b)(1), which governs the entry checks for the Facilitation Mechanism. Specifically, the Exchange proposes to amend the provision as follows: “Orders must be entered into the Facilitation Mechanism at a price that is (A) equal to or better than the NBBO and the internal BBO on the same side of the market as the agency order unless there is a Priority Customer order on the same side *of the market as the agency order...*” The proposed change does not change current System behavior,

and is meant to align the language in the Priority Customer order clause relating to the same side of the market as the agency order more closely with similar language in the preceding clause.

Price Improvement Mechanism

The Exchange proposes to amend Options 3, Section 13 (Price Improvement Mechanism for Crossing Transactions) to modify the entry checks for the Exchange's Price Improvement Mechanism ("PIM") to reflect the BX-like re-pricing changes under this proposal.²⁹ The Exchange proposes to amend Options 3, Section 13(b)(1) to provide, "If the Agency Order is for less than 50 option contracts, and if the difference between the National Best Bid and National Best Offer ("NBBO") *or the difference between the internal best bid and internal best offer* is \$0.01, the Crossing Transaction must be entered at *\$0.01* better than the NBBO *and the internal BBO* on the opposite side of the market from the Agency Order and better than the limit order or quote on the Nasdaq MRX order book on the same side of the Agency Order."³⁰ The addition of "internal BBO" herein is similar to the changes proposed for the Facilitation and Solicited Order Mechanisms discussed above in that the Exchange is reflecting the proposed re-pricing changes in its PIM rule as illustrated by the example below.

Today, an Agency Order for less than 50 contracts could begin a PIM if the difference between the NBBO is \$0.01. With this change, an Agency Order for less than 50 contracts could begin a PIM if the difference between the NBBO or between the internal BBO is \$0.01. Below is an example of the how the System would treat an order for less than 50 contracts where the internal BBO is greater than the NBBO with respect to the rule text within Options 3, Section 13(b)(1).

²⁹ BX intends to file a rule change to amend BX Options 3, Section 13 to similarly refer to an "internal BBO."

³⁰ Currently, Options 3, Section 13(b)(1) provides, "If the Agency Order is for less than 50 option contracts, and if the difference between the National Best Bid and National Best Offer ("NBBO") is \$0.01, the Crossing Transaction must be entered at one minimum price improvement increment better than the NBBO on the opposite side of the market from the Agency Order and better than the limit order or quote on the Nasdaq MRX order book on the same side of the Agency Order."

Assume MRX Market Maker quotes an option series at 1.09 (10) x 1.15 (10)

Next assume ABBO quotes that option series at 1.10 (10) x 1.11 (10)

Assume an order locks the ABBO quote with a buy order in that options series of 5 @ 1.11

With the proposed repricing, this order would book at 1.11 and display 1 MPV (penny in this case) away at 1.10 on the order book

In this scenario:

- the PIM to buy 49 @ 1.10 would be rejected;
- the PIM to buy 49 @ 1.11 would be rejected;
- the PIM to sell 49 @ 1.10 would be rejected; and
- the PIM to sell 49 @ 1.11 would be rejected

This proposed new rule text accounts for a non-displayed better price that may be available on the order book. A similar change is proposed for the Crossing Transaction within that same paragraph. Additionally, in lieu of stating “one minimum price improvement increment” the Exchange proposes to replace that rule text with “\$0.01.” Amending the rule text to \$0.01 does not amend the current System operation, rather it more simply states what that minimum increment is today. The Exchange proposes similar changes within Options 3, Section 13(b)(2) to add references to “difference between the internal BBO” and “\$0.01.”³¹ Below is an example of the how the System would treat an order for 50 contracts or more where the internal BBO is greater than the NBBO with respect to the rule text within Options 3, Section 13(b)(2).

Assume MRX Market Maker quotes an option series at 1.09 (10) x 1.15 (10)

Next assume ABBO quotes that option series at 1.10 (10) x 1.11 (10)

Assume an order locks the ABBO quote with a buy order in that option series at 5 @ 1.11

³¹ See supra note 29.

With the proposed repricing this order would book at 1.11 and display 1 MPV (penny in this case) away at 1.10 on the order book

In this scenario:

- the PIM to buy 50 @ 1.10 would be rejected;
- the PIM to buy 50 @ 1.11 would be rejected;
- the PIM to sell 50 @ 1.10 would be rejected; and
- the PIM to sell 50 @ 1.11 would be accepted and would begin a PIM auction.

Assuming no other interest arrives during the PIM auction timer, this order would trade at the end of the auction timer, thereby filling the order 5 @ 1.11 and the remainder would allocate to the contra side/counter side order.

Acceptable Trade Range

As set forth in Options 3, Section 15(a)(2)(A), the Exchange currently offers an Acceptable Trade Range (“ATR”) risk protection that sets dynamic boundaries within which quotes and orders may trade. ATR is designed to guard against the System from experiencing dramatic price swings by preventing the immediate execution of quotes and orders beyond the thresholds set by the protection. With the proposed adoption of the BX-like re-pricing mechanism described above, the Exchange proposes to introduce an iterative process for ATR wherein the Exchange will attempt to execute interest that exceeds the outer limit of the ATR for a brief period of time while that interest is automatically re-priced in the manner discussed below. The Exchanges notes that today, it would cancel rather than re-price any interest that exceeds the outer limit of the ATR. The proposed changes will harmonize the Exchange’s ATR with BX’s ATR.³²

³² See BX Options 3, Section 15(b)(1). As discussed further below, the Exchange will also add references to “internal BBO” in the ATR reference price description. BX intends to file a similar rule change to clarify this behavior.

Currently, subparagraph (i) of Options 3, Section 15(a)(2)(A) provides that the System will calculate an ATR to limit the range of prices at which an order or quote will be allowed to execute. The ATR is calculated by taking the reference price, plus or minus a value to be determined by the Exchange (i.e., the reference price – (x) for sell orders and the reference price + (x) for buy orders).³³ ATR is not available for All-or-None Orders. Subparagraph (ii) provides that the reference price is the National Best Bid (“NBB”) for sell orders/quotes and the National Best Offer (“NBO”) for buy orders/quotes.³⁴ The reference price is calculated upon receipt of a new order or quote, provided that if the applicable NBB or NBO price is improved at the time an order is routed to an away market, a new reference price is calculated based on the NBB or NBO at that time. Today, as set forth in subparagraph (iii), if an order or quote reaches the outer limit of the ATR without being fully executed, then any unexecuted balance will be cancelled.

The Exchange now proposes to amend this rule to adopt an iterative process like BX wherein an order/quote that reaches its ATR boundary will be paused for a brief period of time to allow more liquidity to be collected, before the order/quote is automatically re-priced and a new ATR is calculated. Specifically, the Exchange proposes to amend subparagraph (iii) of Options 3, Section 15(a)(2)(A) to provide that if an order or quote reaches the outer limit of the ATR (“Threshold Price”) without being fully executed, it will be posted at the Threshold Price for a brief period, not to exceed one second (“Posting Period”), to allow the market to refresh and determine whether or not more liquidity will become available (on the Exchange or any other exchange if the order is designated as routable) within the posted price of the order or quote before moving on to a new Threshold Price. Upon posting, either the current Threshold Price of

³³ The ATR settings values are tied to the option premium and will be set out in the ATR table in the MRX system settings document on a publicly available website. The MRX settings will be identical to BX ATR. The Exchange would notify all Members through an Options Trader Alert if it determined to amend that value and also publish the settings on a publicly available website.

³⁴ In the event of a crossed ABBO, ATR will use the NBO instead of the NBB for incoming sell orders and the NBB instead of the NBO for incoming buy orders as the reference price.

the order/quote or an updated NBB for buy orders/quotes or the NBO for sell orders/quotes (whichever is higher for a buy order/quote or lower for a sell order/quote) then becomes the reference price for calculating a new ATR. If the order/quote remains unexecuted after the Posting Period, a new Acceptable Trade Range will be calculated and the order/quote will execute, route, or post up to the new Threshold Price. This process will repeat until either (1) the order/quote is executed, cancelled, or posted at its limit price or (2) the order/quote has been subject to a configurable number of instances of the ATR as determined by the Exchange³⁵ (in which case it will be returned).³⁶ The proposed changes will be functionally identical to BX's ATR, as set forth in BX Options 3, Section 15(b)(1)(A).

In light of the foregoing changes, the Exchange also proposes to update the reference price definition in subparagraph (ii) to provide that upon receipt of a new order or quote, the reference price will now be the *better of the NBB or internal best bid* for sell orders/quotes and the *better of the NBO or internal best offer* for buy orders/quotes *or the last price at which the order/quote is posted, whichever is higher for a buy order/quote or lower for a sell order/quote*.³⁷

This will be functionally identical to BX's ATR reference price, as set forth in BX Options 3, Section 15(b)(1).³⁸

³⁵ The Exchange intends to initially set the configurable number to 5 iterations, similar to BX. The Exchange would issue an Options Trader Alert if it determined to amend that timeframe and also publish the settings on a publicly available website.

³⁶ Under this proposal, DNR orders that are locked against the ABBO will pause their ATR iterations (i.e., a new ATR will not be calculated based on the reference price at that time) and will remain this way until the ATR process can be completed. This will be the same as BX DNR order handling. Returning an order to the customer means that the order would be cancelled.

³⁷ The additions of "internal BBO" in this rule text are consistent with the proposed re-pricing described above.

³⁸ BX Options 3, Section 15(b)(1) states, in relevant part, that "[t]he system will calculate an Acceptable Trade Range to limit the range of prices at which an order will be allowed to execute. The Acceptable Trade Range is calculated by taking the reference price, plus or minus a value to be determined by the Exchange. (i.e., the reference price - (x) for sell orders and the reference price + (x) for buy orders). Upon receipt of a new order, the

In addition, the Exchange proposes in new subparagraph (iv)³⁹ that during the Posting Period, the Exchange will disseminate as a quotation: (1) the Threshold Price for the remaining size of the order/quote triggering the ATR and (2) on the opposite side of the market, the best price will be displayed using the “non-firm” indicator message in accordance with the specifications of the network processor. This would allow the order or quote setting the ATR Threshold Price to retain priority in the Exchange book and also prevent any later-entered order from accessing liquidity ahead of it. If the Exchange were to display trading interest available on the opposite side of the market, that trading interest would be automatically accessible to later-entered orders during the period when the order triggering the ATR is paused. This is identical to how BX currently disseminates such interest during the ATR Posting Period.⁴⁰ Identical to BX, following the Posting Period, the Exchange will return to a normal trading state and disseminate its best bid and offer.⁴¹

Importantly, the ATR is neutral with respect to away markets. The order may route to other destinations to access liquidity priced within the ATR provided the order is designated as routable, as shown in the example below.⁴² With the proposed changes, if the order still remains

reference price is the NBB for sell orders and the NBO for buy orders or the last price at which the order is posted whichever is higher for a buy order or lower for a sell order.” The Exchange notes that BX’s rule does not reference “quotes,” but BX’s ATR currently applies to both orders and quotes like the Exchange’s ATR. The Exchange further notes that BX’s rule does not refer to an “internal BBO” but that today, BX’s ATR reference price also takes the the better of the NBB (NBO) or internal best bid (best offer) for sell (buy) orders/quotes, or the last price at which the order/quote is posted.

³⁹ The Exchange will make a related change to update current subparagraph (iv) to subparagraph (v).

⁴⁰ See BX Options 3, Section 15(b)(1)(B). Like BX today, with the proposed changes, route timers pursuant to Options 5, Section 4(a), will continue to run on the Exchange during ATR iterations and “firm” quote posting can occur if, for example, the order is repriced to one MPV away from the ABBO pursuant to proposed Options 3, Section 5(d) to comply with the trade-through and locked or crossed market restrictions pursuant to Options 5, Section 2. In such cases, the quotation will disseminate as a “firm” quote.

⁴¹ See BX Options 3, Section 15(b)(1)(B).

⁴² When a Threshold Price is calculated, an order can route and execute at away venues at multiple prices that are at or better than the calculated Threshold Price.

unexecuted, this process will repeat⁴³ until the order is executed, cancelled, or posted at its limit price. Pursuant to Options 5, Section 4, if after an order is routed to the full size of an away exchange and additional size remains available for the routed order, the remaining contracts will be posted on the Exchange's order book at a price that assumes the away market has been fully executed and exhausted by the routed order.⁴⁴ This practice of routing and then posting is consistent with the national market system plan governing trading and routing of options orders and the Exchange policies and procedures that implement that plan.⁴⁵

The following examples illustrate the proposed ATR functionality.

Example 1

Assume that the Acceptable Trade Range is set for \$0.05 and the following quotations are posted in all markets:

Away Exchange Quotes:

Exchange	Bid Size	Bid Price	Offer Price	Offer Size
ISE	10	\$0.75	\$0.90	10
AMEX	10	\$0.75	\$0.92	10
PHLX	10	\$0.75	\$0.94	10

MRX Price Levels:

Exchange	Bid Size	Bid Price	Offer Price	Offer Size
MRX	10	\$0.75	\$0.90	10
MRX			\$0.95	10
MRX			\$0.97	10
MRX			\$1.00	20

⁴³ As proposed in Options 3, Section 15(a)(2)(A)(iii)(2), the Exchange will establish a maximum number of ATR iterations until the order or quote is returned back to the Member.

⁴⁴ See Options 5, Section 4(a)(iii) (effective but not yet operative).

⁴⁵ See Options Order Protection and Locked/Crossed Markets Plan, Securities Exchange Act Release No. 60405 (July 30, 2009), 74 FR 39362 (August 6, 2009).

MRX receives a routable order to buy 70 contracts at \$1.10. The Acceptable Trade Range is \$0.05 and the reference price is the National Best Offer - \$0.90. The Acceptable Trade Range threshold is then $\$0.90 + \$0.05 = \$0.95$ which is the Threshold Price. The order is allowed to execute up to and including \$0.95.

- 10 contracts will be executed at \$0.90 against MRX
- 10 contracts will be executed at \$0.90 against ISE
- 10 contracts will be executed at \$0.92 against AMEX
- 10 contracts will be executed at \$0.94 against PHLX
- 10 contracts will be executed at \$0.95 against MRX
- Then, after executing at multiple price levels, the order is posted at the Threshold Price of \$0.95 for a brief period not to exceed one second (“Posting Period”) to determine whether additional liquidity will become available.
- During the Posting Period, a new Acceptable Trade Range Threshold Price of \$1.00 is determined (new reference price of $\$0.95 + \$0.05 = \$1.00$)
- If, during the Posting Period (brief pause not to exceed 1 second), no liquidity becomes available within the order’s posted price of \$0.95, then at the conclusion of the Posting Period, the System will execute 10 contracts at \$0.97, and 10 contracts at \$1.00⁴⁶

Similarly, if a new order is received when a previous order has reached the Acceptable Trade Range threshold, the Threshold Price will be used as the reference price for the new Acceptable Trade Range threshold. Both orders would then be allowed to execute up (down) to the new Threshold Price.

⁴⁶ The brief pause described above will not disadvantage customers seeking the best price in any market. For example, if in the example above an NYSE ARCA quote of \$0.75 x \$0.96 with size of 10 x 10 is received, a routable order would first route to NYSE ARCA at \$0.96, then execute against MRX at \$0.97.

Example 2:

Away Exchange Quotes:

Exchange	Bid Size	Bid Price	Offer Price	Offer Size
ISE	10	\$0.75	\$0.90	10
AMEX	10	\$0.75	\$0.92	10
PHLX	10	\$0.75	\$0.94	10

MRX Price Levels:

Exchange	Bid Size	Bid Price	Offer Price	Offer Size
MRX	10	\$0.75	\$0.90	10
MRX			\$0.95	10
MRX			\$1.05	20

MRX receives a routable order to buy 60 contracts at \$1.10. The Acceptable Trade Range is \$0.05 and the reference price is the National Best Offer - \$0.90. The Acceptable Trade Range Threshold Price is then $\$0.90 + \$0.05 = \$0.95$ which is the Threshold Price. The order is allowed to execute up to and including \$0.95.

- 10 contracts will be executed at \$0.90 against MRX
- 10 contracts will be executed at \$0.90 against ISE
- 10 contracts will be executed at \$0.92 against AMEX
- 10 contracts will be executed at \$0.94 against PHLX
- 10 contracts will be executed at \$0.95 against MRX
- Then, after executing at multiple price levels, the order is posted at \$0.95 for a Posting Period (brief period not to exceed one second) to determine whether additional liquidity will become available.

- No new liquidity was received during the Posting Period. A new Acceptable Trade Range Threshold Price of \$1.00 is determined (new reference price of \$0.95 + \$0.05 = \$1.00)
- If, during the previous Posting Period, a second order is received to buy 10 contracts at \$1.25, the two orders would then post at the new Acceptable Trade Range Threshold price of \$1.00 for another Posting Period (brief period not to exceed one second) to determine whether additional liquidity will become available.
- A new Acceptable Trade Range Threshold Price of \$1.05 will be calculated.
- If no additional liquidity becomes available within the posted price of the orders (\$1.00) during the Posting Period, the orders would execute 10 contracts each against the order on the MRX book at \$1.05 at the conclusion of the Posting Period.

Example 3

Assume the following:

Acceptable Trade Range is configured to \$0.07

ABBO 1.91 (10) x 2.01 (10)

Buy order 1 @ 2.00

DNR Order to Buy 1 @ 2.01 – slides back to display at 2.00

MM1 Quote 1.99 (10) x 2.12 (10)

Order1 Buy 10 @ 1.94

Order2 Buy 10 @ 1.93

Order3 Buy 5 @ 1.92

Order4 Buy 5 @ 1.91

Order to Sell 100 @ 1.90 comes in

- First trades 1 @ 2.01 with slid DNR order
- Then trades 1 @ 2.00 with other buy order

- Then trades 10 @ 1.99 with MM quote (then quote purges since bid side volume has been exhausted)
- Then trades with Order1 (10 @ 1.94)
- Then posts 78 @ 1.94, the ATR Threshold (calculated by taking the initial reference price of 2.01 (i.e., the better of the internal best bid and NBB) minus the 0.07 Acceptable Trade Range)

After the ATR Posting Period completes:

- Trades 10 @ 1.93 with Order2
- Trades 5 @ 1.92 with Order3
- Trades 5 @ 1.91 with Order4
- Posts to book at 1.91 non-displayed and re-prices to display 1 MPV (penny) from ABBO at 1.92, exposes 58 @ 1.91

After route timer passes:

- Routes 10 @ 1.91 to ABBO
- Posts to book at its limit with remaining 48 @ 1.90⁴⁷

Finally, the Exchange proposes to add clarifying language in the first sentence of subparagraph (i) of Options 3, Section 15(a)(2)(A) that the System will calculate the ATR after the Opening Process.⁴⁸ This is a clarifying change that does not amend current functionality. ATR does not apply until after the Opening Process because the order book (and the ATR reference price) is established once options series are open for trading.

2. Statutory Basis

⁴⁷ See supra note 40 regarding route timer.

⁴⁸ While BX's ATR does not have this clarification today, BX's ATR likewise applies after the Opening Process.

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,⁴⁹ in general, and furthers the objectives of Section 6(b)(5) of the Act,⁵⁰ 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.

Generally, the Exchange's proposal is intended to add or align certain System functionality with functionality currently offered on BX in order to provide a more consistent technology offering across affiliated Nasdaq options exchanges. A more harmonized technology offering, in turn, will simplify technology implementation, changes, and maintenance by market participants of the Exchange that are also participants on Nasdaq affiliated options exchanges. The Exchange's proposal also seeks to provide greater harmonization between the rules of the Exchange and BX, which would result in greater uniformity, and less burdensome and more efficient regulatory compliance by market participants. As such, the proposal would foster cooperation and coordination with persons engaged in facilitating transactions in securities and would remove impediments to and perfect the mechanism of a free and open market and a national market system. The Exchange believes that more consistent rules will increase the understanding of the Exchange's operations for market participants that are also participants on the Nasdaq affiliated options exchanges, thereby contributing to the protection of investors and the public interest. The Exchange believes that such changes would remove impediments to and perfect the mechanism of a free and open market and a national market system because the proposed changes would promote transparency in Exchange rules and reducing potential confusion, thereby ensuring that Members, regulators, and the public can more easily navigate the Exchange's rulebook and better understand how options trading is conducted on the Exchange.

⁴⁹ 15 U.S.C. 78f(b).

⁵⁰ 15 U.S.C. 78f(b)(5).

Re-pricing

The Exchange believes that re-pricing quotes and orders that would otherwise lock or cross an away market, as proposed in Options 3, Sections 4(b)(6), 5(c) and (d), is consistent with the Act. Today, BX re-prices such quotes and orders by re-pricing them to the current national best price as non-displayed, and displaying them one MPV away from the best bid or offer.⁵¹ This behavior is consistent with the protection of investors and the general public because it affords Members the ability to obtain the best price offered among the various options markets while not locking or crossing an away market. With the proposed changes, the Exchange will continue to not trade through an away market. As a result, the Exchange's proposal would be consistent with the Options Order Protection and Locked/Crossed Market Plan. Any quote or non-routable order that locks or crosses an away market on the Exchange would be re-priced as a result of this amendment. The proposed changes to Options 3, Section 4(b)(6) will clearly articulate the proposed re-pricing mechanism, and will provide Members with additional information as to how quotes will be handled by the System when those quotes would lock or cross an away market. As discussed above, the difference between the current and proposed quote re-pricing is that the Exchange will re-price to the current national best price under the proposal as non-displayed (instead of re-pricing and displaying one MPV inferior as it does today). The Exchange will continue to display one MPV inferior to the national best price under this proposal. As such, the proposed quote re-pricing mechanism will continue to prevent the Exchange from disseminating a price that locks or crosses another market. This process is identical to how BX quote re-pricing functions today, as described in BX Options 3, Section 4(b)(6).

In connection with the introduction of the BX-like quote re-pricing mechanism, the Exchange also proposes to add the definition of internal BBO (similar to the proposed definition

⁵¹ See BX Options 3, Sections 4(b)(6), 5(c) and (d).

of internal BBO for order re-pricing) in Options 3, Section 4(b)(7). As discussed above, the proposed addition is intended to make clear that quotes may now be executed using either the BBO or internal BBO if the Exchange best bid or offer has been re-priced pursuant to the order re-pricing mechanism proposed in Options 3, Section 5(d) and the quote re-pricing mechanism proposed in Options 3, Section 4(b)(6). As noted above, BX handles quotes in the same manner as proposed for MRX Options 3, Section 4(b)(7).⁵²

The proposed changes to Options 3, Section 5(c) will allow the Exchange to define an internal BBO in its Rules when describing re-priced orders that remain on the order book and are available at non-displayed prices while resting on the order book. The proposed changes to Options 3, Section 5(d) will clearly articulate the proposed re-pricing mechanism itself, and provide Members with additional information as to how orders are handled by the System when those orders would lock or cross an away market. The Exchange notes that allocation priority for re-priced orders would be consistent with the current rules in Options 3, Section 10(c).

The Exchange also believes that the related proposals to add references to internal BBO in Options 2, Section 10 and Options 3, Section 10 are consistent with the Act. Overall, the proposed addition of internal BBO will ensure that the rules conform to the concept of re-pricing at an internal BBO as proposed in Options 5(c) and (d) and will make clear that a re-priced order is accessible on the Exchange's order book at the non-displayed price. Specifically, the Exchange believes that adding references to the internal BBO in the allocation rules for Preferred Market Makers and Primary Market Makers will make clear that in connection with the proposed re-pricing mechanism, such market participants must now be quoting at the better of the NBBO or the internal BBO in order to be entitled to the applicable allocations set forth in their respective rules. The introduction of the internal BBO would have no impact on a Primary Market Maker's quoting obligations as Primary Market Makers do not need to be at the NBBO

⁵² See supra note 13.

today, or as proposed, the better of NBBO or the internal BBO in order to meet their quoting obligations.⁵³ The Exchange also notes that the proposed quote re-pricing mechanism described above will allow the Primary Market Maker or Preferred Market Maker to re-price to the internal BBO and receive their enhanced allocation when the internal BBO is better than the NBBO.⁵⁴ In addition, by not providing the enhanced allocation for Market Makers that are not at the internal BBO when it is better than the NBBO, the Exchange is protecting investors with more aggressively priced interest by allocating to them first. The Exchange does not believe that Market Makers should be entitled to enhanced allocations in the foregoing instance given that there are better available internal BBO prices on the market. Like BX, the Exchange believes that the overall benefit to the marketplace is that market participants will be able to obtain the best price offered among the various options markets while avoiding a trade-through or locked or cross market violation.

Opening Process

The Exchange believes that the proposed changes to the Opening Process in Options 3, Section 8 are consistent with the Act. Specifically, the Exchange believes that the proposed changes to Options 3, Section 8(j)(6)(i) will bring greater transparency as to how non-routable orders will be handled during the Opening Process. As discussed above, the Exchange proposes to no longer cancel any unexecuted portions of a DNR Order that locks or crosses an away market, and instead will re-price the DNR Order to the current away best offer (for bids) or the current away best bid (for offers) as non-displayed, and display a price that is one minimum

⁵³ Quoting obligations include, for example, a Market Maker's continuous quoting obligations. See Options 2, Section 5(e).

⁵⁴ Market Makers are incentivized to quote at the internal BBO as there is sufficient market information provided to quote accordingly. BX and Phlx also allow their Lead Market Makers and Directed Market Makers to re-price to the internal BBO and receive their enhanced allocation when the internal BBO is better than the NBBO. See BX and Phlx Options 3, Section 10. The Nasdaq Options Market LLC ("NOM") also re-prices orders and quotes but does not have the concept of a Lead Market Makers or Directed Market Makers.

trading increment inferior to the ABBO, and disseminate such DNR Order as part of the new BBO. The proposed changes reflect the new BX-like re-pricing mechanism that the Exchange is proposing to adopt as part of the technology migration. The Exchange believes that the proposed re-pricing of DNR Orders during the Opening Process is consistent with the protection of investors and the general public because it affords Members the ability to obtain the best price offered among the various options markets while not locking or crossing an away market. As discussed above, proposed Options 3, Section 8(j)(6)(i) will also continue to reflect that the Exchange will cancel any interest that is priced through the opening price and keep all other interest in the System for trading after opening. The Exchange notes with the proposed changes, Options 3, Section 8(j)(6)(i) will be substantially similar to BX Options 3, Section 8(k)(4) and (5), thereby promoting greater consistency among the rules of Nasdaq affiliated options exchanges.⁵⁵ Finally, the proposed changes to the Opening Process attempts to maximize the number of contracts executed on the Exchange during such Opening Process, while taking into consideration away market interests and ensuring that better away prices are not traded through.

Auction Mechanisms

Facilitation and Solicited Order Mechanisms

The Exchange believes that the proposed addition of “or the internal BBO” in the entry check provisions for the Facilitation and Solicited Order Mechanisms at Options 3, Sections 11(b)(1) and (d)(1), respectively, is consistent with the Act. The proposed changes will account for BX-like re-pricing, which would result in an Exchange order being available at a price that is better than the NBBO but is non-displayed. The proposed changes to add “or the internal BBO” will make clear that the System will now check orders entered into those auction mechanisms against a non-displayed order book priced better than the NBBO as well the NBBO.⁵⁶ As a

⁵⁵ See supra note 22.

⁵⁶ Today, BX and Phlx similarly consider the internal BBO when initiating their price improvement auctions, BX PRISM and Phlx PIXL. The Exchange would continue to abide by the rules approved by the Commission and not commence an auction in the

result, the proposed changes would ensure that Members submitting an order through the Facilitation Mechanism or Solicited Order Mechanism submit such orders at the best price, which (i) for the Facilitation Mechanism, must be at a price that is equal to or better than the displayed NBBO and the non-displayed BBO (i.e., the internal BBO) on the same side of the market as the agency order, and (ii) for the Solicited Order Mechanism, must be at a price that is equal to or better than the NBBO and the internal BBO on both sides of the market.⁵⁷

The Exchange also believes that the clarifying changes in Options 3, Section 11(b)(1) relating to Facilitation order entry checks are consistent with the Act as the proposed changes seek to align the language in the Priority Customer order clause relating to the same side of the market as the agency order more closely with similar language in the preceding clause and clarify current System behavior. Similarly, the Exchange believes that the clarifying changes in Options 3, Section 11(d)(1) relating to Solicited Order Mechanism order entry checks are consistent with the Act as the proposed changes seek to align the language in the Priority Customer order clause with the preceding clause and clarify current System behavior. The Exchange believes that the proposed changes will promote transparency in the Rulebook, and reduce potential confusion by Members and investors.

Price Improvement Mechanism

Similarly, the Exchange's proposal to amend Options 3, Section 13(b)(1) and (b)(2) to account for re-pricing, which would result in an MRX order being available at a price which is better than the NBBO but is non-displayed, is consistent with the Act. The addition of "or the internal BBO" will make clear that a non-displayed order book priced better than the NBBO

Facilitation or Solicited Order Mechanisms or in PIM if better priced interest was resting on the book.

⁵⁷ As proposed, for the Facilitation Mechanism, if there is a Priority Customer order on the BBO or internal BBO on the same side of the market as the agency order, the order must be entered at an improved price over the Priority Customer order. For the Solicited Order Mechanism, if there is a Priority Customer order on the BBO or internal BBO on either side of the market, the order must be entered at an improved price over the Priority Customer order.

would cause a PIM auction to initiate. Stating “\$0.01” in lieu of “one minimum price improvement increment” is consistent with the Act as this non-substantive amendment more simply states the current minimum increment.⁵⁸ Similar to the changes described above for the Facilitation and Solicited Order Mechanisms, the proposed changes for PIM would ensure that Members submitting an order through PIM submit such orders at the best price, which must be (i) better than the displayed NBBO and non-displayed BBO (i.e., the internal BBO) on the Exchange’s order book when the PIM is less than 50 contracts and the difference between the NBBO or the difference between the internal BBO is \$0.01 wide or (ii) equal to or better than the displayed NBBO and internal BBO when the PIM is 50 contracts or more, or if the difference between the NBBO or the difference between the internal BBO is greater than \$0.01.⁵⁹

Acceptable Trade Range

The Exchange believes that the proposed changes to its ATR risk protection in Options 3, Section 15(a)(2)(A) are consistent with the Act. The Exchange is proposing to introduce an iterative process for ATR wherein an order/quote that reaches the outer limit of the ATR (i.e., the Threshold Price) without being fully executed will be paused for a brief Posting Period to allow more liquidity to be collected and determine whether or not more liquidity will become available (on the Exchange or an away market if the order is designated as routable) within the posted price of the order/quote before moving on to a new Threshold Price. The Threshold Price, at which the order is posted, would then become the new reference price,⁶⁰ and a new ATR would be calculated. The Exchange notes that the proposed iterative ATR process is identical to current BX ATR functionality in BX Options 3, Section 15(b)(1), and therefore is not new or novel.

⁵⁸ See supra note 55.

⁵⁹ Provided they are better than any limit order or quote on the same side of the Nasdaq MRX order book as the PIM agency order for both scenarios.

⁶⁰ As described above, if a new NBB is received that is greater than a buy order posted at the Threshold Price, or a new NBO is received that is lower than a sell order posted at the Threshold Price, the new NBB (for buy orders) or NBO (for sell orders) would become the new reference price.

The Exchange believes that with the proposed changes, ATR will continue to reduce the negative impacts of sudden, unanticipated volatility in individual Exchange options, serve to preserve an orderly market in a transparent manner, increase overall market confidence, and promote fair and orderly markets and the protection of investors. The proposed ATR iterative process should also continue to result in greater continuity in prices as it is designed to prevent immediate or rapid executions at far away prices, thereby protecting investors and the public interest. As discussed above, the Exchange is bounding how far interest can trade into the depth of the Exchange's book based on the best prices that are available to the market. The Exchange therefore believes that its proposal protects investors and the public interest by basing the ATR reference price on the best available prices.

The Exchange also believes that the addition of configurable instances of iterations when the ATR would apply will provide Members with more certainty as to the application of the rule.⁶¹

The Exchange believes that disseminating a "non-firm" indicator message during the Posting Period, as discussed above, is consistent with its obligations under the SEC Quote Rule.⁶² As discussed above, this would allow the order or quote setting the ATR Threshold Price to retain priority in the Exchange book and also prevent any later-entered order from accessing liquidity ahead of it. If the Exchange were to display trading interest available on the opposite side of the market, that trading interest would be automatically accessible to later-entered orders during the period when the order triggering the ATR is paused. The "non-firm" indicator is meant to relieve eligible exchanges from having to apply locked and crossed rules to the quotation of the market.⁶³ Since the opposite side interest is likely to be traded through at the

⁶¹ See supra notes 33 and 35.

⁶² See 17 CFR 242.602(a)(3).

⁶³ To the away venue, this quotation is simply the top of book quotation on MRX (which could be made of orders and/or quotes).

completion of the Posting Period, the Exchange would display that interest as “non-firm” to alleviate away exchanges from having to apply lock/crossed violation protections (when routing) against this price.⁶⁴

The fact that the Exchange is experiencing volatility that is strong enough to trigger the ATR mechanism qualifies as an unusual market condition. The Exchange expects such situations to be rare, and it has set the current parameters of the mechanism at levels that ensures that it is triggered quite infrequently. In addition, the proposed ATR mechanism will cause the market to pause for no more than one second to try to dampen volatility, the same pause that currently exists on BX. Importantly, the brief pause occurs only after the Exchange has already executed transactions—potentially at multiple price levels—rather than pausing before executing any transactions in the hopes of attracting initial liquidity.

Finally, the Exchange believes that the proposed clarifying language to add that the System will calculate ATR after the Opening Process will better articulate current System behavior. ATR does not apply until after the opening because the order book (and the ATR reference price) is established once options series are open for trading.

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. The Exchange operates in a competitive market and regularly competes with other options exchanges for order flow. As discussed above, the Exchange is re-platforming its System in connection with the technology migration to enhanced Nasdaq functionality, which the Exchange believes would promote competition among options exchanges by potentially attracting additional order flow to the Exchange with the enhanced trading platform. The basis for the majority of the

⁶⁴ In addition, Options 5, Section 1(k) defines “Non-Firm” as, with respect to Quotations, that Members of a Eligible Exchange are relieved of their obligation to be firm for their Quotations pursuant to Rule 602 under the Exchange Act.

proposed rule changes are the rules of the Nasdaq affiliated options exchanges, which have been previously filed with the Commission as consistent with the Act.

The quote re-pricing proposal in Options 3, Section 4(b)(6) and (7) will be functionally identical to BX quote re-pricing in Options 3, Section 4(b)(6).⁶⁵ The order re-pricing proposal in Options 3, Section 5(c) and (d) will be functionally identical to BX order re-pricing in BX Options 3, Section 5(c) and (d).⁶⁶ Also, the proposed ATR enhancement in Options 3, Section 15(a)(2)(A) will be functionally identical to BX ATR in BX Options 3, Section 15(b)(1).

The Exchange reiterates that the proposed rule change is being proposed in the context of the technology migration to enhanced Nasdaq functionality. As such, the Exchange believes that this proposed rule change is necessary to permit fair competition among options exchanges because the proposed rule changes will permit MRX to re-price orders and quotes similar to BX. Additionally, with this proposal, MRX would be able to offer its Members the same ATR functionality currently available to BX Participants. The Exchange further believes the proposed rule change will benefit Members by providing a more consistent technology offering, as well as consistent rules, for market participants on the Nasdaq affiliated options exchanges.

The Exchange does not believe that the proposed rule change will impose any burden on intra-market competition that is not necessary or appropriate in furtherance of the purposes of the Act, as the majority of the proposed changes will apply to all Members. ATR allows Members to potentially receive better prices for their aggressive orders or quotes as they work through the ATR Threshold Prices and look to accumulate additional interest at each posted price during the Posting Periods. Re-pricing affords Members the ability to obtain the best price offered among the various options markets while continuing to be consistent with the Options Order Protection and Locked/Crossed Market Plan, as discussed above. The ability to leverage these mechanisms

⁶⁵ See supra note 13.

⁶⁶ The re-pricing rule changes impact the following rule provisions: Options 2, Section 10; Options 3, Section 8(j)(6)(i); Options 3, Section 10(c)(1)(B), (C) and (D)(i)-(iii); Options 3, Section 11(b)(1) and (d)(1); and Options 3, Section 13(b)(1) and (2).

to achieve better prices for market participants will drive competition from Members to provide tighter markets and more liquidity in order to participate in the trading opportunities while still being bound by reasonable risk protections.

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 to Section 19(b)(3)(A) of the Act⁶⁷ and Rule 19b-4(f)(6) thereunder.⁶⁸

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:

⁶⁷ 15 U.S.C. 78s(b)(3)(A).

⁶⁸ 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of 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.

Electronic Comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-MRX-2022-16 on the subject line.

Paper Comments:

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

All submissions should refer to File Number SR-MRX-2022-16. 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 (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to

make available publicly. All submissions should refer to File Number SR-MRX-2022-16 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.⁶⁹

J. Matthew DeLesDernier,
Deputy Secretary.

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⁶⁹ 17 CFR 200.30-3(a)(12).