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Page 1 of * 170		SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4		File No. * SR 2025 - * 007 Amendment No. (req. for Amendments *) 3	
Filing by Cboe BYX Exchange, Inc. Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934					
Initial * <input type="checkbox"/>		Amendment * <input checked="" type="checkbox"/>		Withdrawal <input type="checkbox"/>	
Pilot <input type="checkbox"/>		Extension of Time Period for Commission Action * <input type="checkbox"/>		Date Expires * <input type="text"/>	
		Section 19(b)(2) * <input checked="" type="checkbox"/>		Section 19(b)(3)(A) * <input type="checkbox"/>	
				Section 19(b)(3)(B) * <input type="checkbox"/>	
				Rule	
		<input type="checkbox"/> 19b-4(f)(1)		<input type="checkbox"/> 19b-4(f)(4)	
		<input type="checkbox"/> 19b-4(f)(2)		<input type="checkbox"/> 19b-4(f)(5)	
		<input type="checkbox"/> 19b-4(f)(3)		<input type="checkbox"/> 19b-4(f)(6)	
Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010 Section 806(e)(1) * <input type="checkbox"/>			Section 806(e)(2) * <input type="checkbox"/>		
			Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934 Section 3C(b)(2) * <input type="checkbox"/>		
Exhibit 2 Sent As Paper Document <input type="checkbox"/>			Exhibit 3 Sent As Paper Document <input type="checkbox"/>		
<b>Description</b> Provide a brief description of the action (limit 250 characters, required when Initial is checked *). <div></div>					
<b>Contact Information</b> Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action. First Name * Courtney Last Name * Smith Title * Senior Counsel E-mail * csmith@cboe.com Telephone * (913) 815-7046 Fax					
<b>Signature</b> Pursuant to the requirements of the Securities Exchange of 1934, Cboe BYX Exchange, Inc. has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized. Date 06/17/2025 (Title *) By Matthew Iwamaye VP, Associate General Counsel (Name *) NOTE: Clicking the signature block at right will initiate digitally signing the form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed. <div>Matthew Iwamaye Date: 2025.06.17 08:52:19 -05'00'</div>					

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SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

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

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

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BYX-25-007 19b-4 (Enhanced RPI) A

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

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

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BYX-25-007 Exhibit 1 (Enhanced RPI)

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

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

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

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

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

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Exhibit Sent As Paper Document

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

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

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Exhibit Sent As Paper Document

**Exhibit 4 - Marked Copies**

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

**Exhibit 5 - Proposed Rule Text**

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BYX-25-007 Exhibit 5 (Enhanced RPI)

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

**Partial Amendment**

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

**Item 1.        Text of the Proposed Rule Change**

(a) Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> Cboe BYX Exchange, Inc. (the “Exchange” or “BYX”) is filing with the Securities and Exchange Commission (“Commission”) a proposal to modify Rule 11.24 to introduce an Enhanced RPI Order and expand its Retail Price Improvement program to include securities priced below \$1.00. The text of the proposed rule change is provided in Exhibit 5.

(b) Not applicable.

(c) Not applicable.

**Item 2.        Procedures of the Self-Regulatory Organization**

(a) The Exchange’s President pursuant to delegated authority approved the proposed rule change on February 3, 2025.

(b) Please refer questions and comments on the proposed rule change to Pat Sexton, Executive Vice President, General Counsel, and Corporate Secretary, (312) 786-7467, or Courtney Smith, Senior Counsel, (913) 815-7046, Cboe BYX Exchange, Inc., 433 West Van Buren Street, Chicago, Illinois 60607.

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

(a) Purpose

This Amendment No. 3 to SR-CboeBYX-2025-007 amends and replaces in entirety Amendment No. 2 to SR-CboeBYX-2025-007, which was filed on June 16, 2025, and withdrawn on June 17, 2025. The Exchange originally filed Amendment No. 1 to SR-

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

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

CboeBYX-2025-007 on May 6, 2025, and withdrew Amendment No. 1 on June 17, 2025.

The Exchange submits this Amendment No. 3 in order to clarify certain points, add additional detail to the proposal, and introduce an amendment to Rule 11.12 (Priority of Orders).

The Exchange proposes to amend Rule 11.24 to enhance the Exchange's Retail Price Improvement Program (the "Program") for the benefit of retail investors. Specifically, the Exchange proposes to introduce a new type of RPI Interest<sup>3</sup> to be known as an "Enhanced RPI Order." The proposed Enhanced RPI Order will allow retail liquidity providers to post orders at their limit price but have the opportunity to provide a greater amount of price improvement as compared to other resting orders on the same side of the BYX Book with higher price-time priority in order to execute with an incoming Retail Order<sup>4</sup> by executing at a price within their established Step-Up Range instruction.<sup>5</sup> The proposed change is designed to provide retail investors with opportunities for additional price improvement by introducing a new order type that will "step-up" its price against orders with a higher priority resting on the BYX Book.<sup>6</sup> Additionally, the Exchange proposes to expand the Program to securities priced below \$1.00.<sup>7</sup> Further, the Exchange proposes to amend Rule 11.12 in order to introduce a new priority band applicable to the

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<sup>3</sup> See proposed Rule 11.24(e). RPI Interest means an order submitted to the Exchange that is designated as either an RPI Order or an Enhanced RPI Order. See also Rule 11.24(a)(3) ("Retail Price Improvement Order").

<sup>4</sup> See Rule 11.24(a)(2) ("Retail Order").

<sup>5</sup> See proposed Rule 11.24(a)(4).

<sup>6</sup> See Rule 1.5(e) ("BYX Book"). The "BYX Book" is the System's electronic file of orders. The "System" shall mean the electronic communications and trading facility designated by the Board through which securities orders of Users are consolidated for ranking, execution, and when applicable, routing away. See Rule 1.5(aa) ("System").

<sup>7</sup> See Rule 11.24(h). The Program is currently limited to trades occurring at prices equal to or greater than \$1.00 per share.

proposed Step-Up Range instruction of an Enhanced RPI Order.

### Background

In November 2012, the Exchange received approval to operate its Program on a pilot basis.<sup>8</sup> The Program operated under a pilot basis until September 30, 2019, when the Program was approved on a permanent basis.<sup>9</sup> In addition, the Exchange was granted a limited exemption from the Sub-Penny Rule, as well as Regulation NMS Rule 602 (Quote Rule) No Action relief<sup>10</sup> to operate the Program.<sup>11</sup> The Program is currently designed to attract Retail Orders to the Exchange and allow such order flow to receive potential price improvement. The Program is currently limited to trades occurring at prices equal to or greater than \$1.00 per share.<sup>12</sup> Under the Program, a class of market participant called a Retail Member Organization (“RMO”)<sup>13</sup> is eligible to submit certain retail order flow (“Retail Orders”) to the Exchange. Users<sup>14</sup> are permitted to provide potential price improvement for Retail Orders<sup>15</sup> in the form of non-displayed interest that is better than the

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<sup>8</sup> See Securities Exchange Act Release No. 68303 (November 27, 2012), 77 FR 71652 (December 3, 2012), SR-BYX-2012-019 (“Pilot Approval Order”).

<sup>9</sup> See Securities Exchange Act Release No. 87154 (September 30, 2019), 84 FR 53183 (October 4, 2019), SR-CboeBYX-2019-014 (“RPI Approval Order”).

<sup>10</sup> See Letter from David Shillman to Eric Swanson (November 27, 2012) (“No Action Letter”), available at <https://www.sec.gov/divisions/marketreg/mr-noaction/byx-112712-602.pdf>.

<sup>11</sup> Supra note 9 at 53185.

<sup>12</sup> Supra note 7. The Exchange will periodically notify the membership regarding the securities included in the Program through an information circular. The Exchange is proposing to make the Program available to all securities (discussed *infra*).

<sup>13</sup> See Rule 11.24(a)(1). A “Retail Member Organization” or “RMO” is a Member (or a division thereof) that has been approved by the Exchange under Rule 11.24 to submit Retail Orders.

<sup>14</sup> See Rule 1.5(cc). A “User” is defined as any member or sponsored participant of the Exchange who is authorized to obtain access to the System.

<sup>15</sup> Supra note 4. A “Retail Order” is defined as an agency or riskless principal order that originates from a natural person and is submitted to the Exchange by an RMO, provided that no change is

national best bid that is a Protected Quotation (“Protected NBB”) or the national best offer that is a Protected Quotation (“Protected NBO”, and together with the Protected NBB, the “Protected NBBO”).<sup>16</sup>

The Exchange developed this Program with the goal of incentivizing RMOs to execute their Retail Orders on the Exchange, rather than off-exchange venues, by providing Retail Orders with greater access to potential opportunities for price improvement on the Exchange. However, as noted by the Commission, even with the presence of retail liquidity programs (“RLPs”) offered by Cboe and other national securities exchanges,<sup>17</sup> the great majority of marketable orders of retail investors continue to be sent to wholesalers.<sup>18</sup> Indeed, as noted in the Commission’s recent rule proposal related to minimum pricing increments,

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made to the terms of the order with respect to price or side of market and the order does not originate from a trading algorithm or any computerized methodology.

<sup>16</sup> See Rule 1.5(t). The term “Protected Quotation” has the same meaning as is set forth in Regulation NMS Rule 600(b)(71). The terms Protected NBB and Protected NBO are defined in BYX Rule 1.5(s). The Protected NBB is the best-priced protected bid and the Protected NBO is the best-priced protected offer. Generally, the Protected NBB and Protected NBO and the national best bid (“NBB”) and national best offer (“NBO”, together with the NBB, the “NBBO”) will be the same. However, a market center is not required to route to the NBB or NBO if that market center is subject to an exception under Regulation NMS Rule 611(b)(1) or if such NBB or NBO is otherwise not available for an automatic execution. In such case, the Protected NBB or Protected NBO would be the best-priced protected bid or offer to which a market center must route interest pursuant to Regulation NMS Rule 611.

<sup>17</sup> See, e.g., NYSE Retail Liquidity program, which promotes cost savings through price improvement for individual investors provided by retail liquidity providers that submit non-displayed interest priced better than the best protected best bid or protected best offer. See also NYSE National Retail Liquidity program, which seeks to attract retail order flow to the Exchange through the potential of price improvement at the midpoint or better. Available at <https://www.nyse.com/markets/liquidity-programs>. See also IEX Retail Program, which incentivizes midpoint liquidity for retail orders through the use of retail liquidity provider orders. Available at <https://www.iexexchange.io/products/retail-program>. See also Nasdaq BX Retail Price Improvement, which allows retail orders to interact with price-improving liquidity. Available at <https://www.nasdaqtrader.com/content/BXRPIfs.pdf>.

<sup>18</sup> See Securities Exchange Act Release No. 96495 (December 14, 2022), 88 FR 128 (January 3, 2023) (“Order Competition Rule”) at 144.

RLPs have not yet attracted a significant volume of retail order flow.<sup>19</sup> In fact, since RLPs have been adopted, the percentage of on-exchange share volume has continued to decrease from approximately 71% to approximately 49% as of December 2024.<sup>20</sup>

Accordingly, the Exchange believes further enhancements to the Program are necessary in order to attract a meaningful volume of marketable retail order flow to the Exchange. In considering how to accomplish the goals of the Program, the Exchange determined to design an enhancement to provide more meaningful levels of price improvement provided to Retail Orders relative to the price improvement currently provided by both the Program as well as off-exchange venues.

As noted by the Commission, there are reasonable concerns with the price improvement provided to retail orders executed off-exchange by wholesale broker-dealers. In short, the Commission itself has stated that “the current isolation of individual investor orders from order-by-order competition results in suboptimal price improvement for such orders.”<sup>21</sup> The Commission believes that the lack of order competition for retail orders leads to “foregone price improvement” or “competitive shortfall,”<sup>22</sup> which for the first quarter of 2022, the Commission quantified to be as much as \$1.5 billion.<sup>23</sup>

In determining how to better design its Program in order to attract retail order flow back to the Exchange, the Exchange conducted research into the amount of price improvement provided to Retail Orders on BYX. The Exchange found that RPI Orders

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<sup>19</sup> See Securities Exchange Act Release No. 96494 (December 14, 2022), 87 FR 80266 (December 29, 2022) (“Tick Size Proposal”) at 80273.

<sup>20</sup> Source: Cboe internal data.

<sup>21</sup> Supra note 18 at 130.

<sup>22</sup> Id.

<sup>23</sup> Id.

under its current Program provided an average of \$0.0013 per share of price improvement to Retail Orders in 2024, as compared to the BYX Book. A more thorough review of BYX data found that the amount of price improvement provided to Retail Orders solely by RPI Orders under the current Program on BYX is lower than the amount of price improvement provided to Retail Orders by all hidden liquidity on BYX (including RPI Orders). An analysis of BYX data found that Retail Orders received an average of \$0.0033 per share of price improvement and a total amount of approximately \$1.68 million in 2024 when executing against all hidden liquidity on BYX (including RPI Orders), as compared to the BYX Book.<sup>24</sup> The Exchange's analysis of price improvement statistics found that its current RPI Orders provide, on average, less price improvement to Retail Orders than other hidden liquidity on BYX. As such, the Exchange believes that revising its Program to include an optional order instruction (discussed *infra*) designed to potentially provide a higher amount price improvement to Retail Orders as compared to the price improvement both currently received under the existing Program as well as through hidden, non-displayed liquidity available on the Exchange against which Retail Orders currently trade with today, will encourage retail order flow to execute on a regulated market as opposed to off-exchange venues.

Accordingly, the Exchange now seeks to enhance its current Program by offering retail liquidity providers an optional Enhanced RPI Order. The Exchange believes the Enhanced RPI Order will incentivize additional retail liquidity provision by enabling RPI liquidity providers to submit an order that is ranked at a lower (for buy orders) or higher (for sell orders) price than the maximum price at which the provider is willing to execute, but

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<sup>24</sup> Supra note 20.

have the opportunity to “step up” to provide a greater amount of price improvement as compared to other higher priority resting orders on the same side of the BYX Book in order to execute with an incoming contra-side Retail Order. As discussed in more detail below, the Enhanced RPI Order will have the ability to gain price priority over same-side resting orders on the BYX Book in exchange for offering price improvement when a contra-side Retail Order is submitted to the Exchange and certain conditions are met. With the deeper pool of retail liquidity-providing orders, the Exchange believes that RMOs will see increased opportunities for on-exchange price improvement and seek to execute more of their Retail Orders on the Exchange.

#### Proposal

The Exchange proposes to amend Rule 11.24(a) to include Rule 11.24(a)(4), which defines the proposed Enhanced RPI Order. The proposed Enhanced RPI Order allows a retail liquidity provider to post a limit order to the Exchange, but also provides the opportunity for the liquidity provider to “step-up” its price within a defined Step-Up Range instruction and have the ability to gain price priority by providing a greater amount of price improvement as compared to orders with higher priority that are resting on the same side of the BYX Book in order to execute against an incoming Retail Order seeking to remove liquidity. An Enhanced RPI Order is designed to be entered with a limit price, but must also include a Step-Up Range instruction, which, when applied to the order’s ranked price provides the highest (for buy orders) or lowest (for sell orders) price it is willing to execute against a contra-side Retail Order. If the Enhanced RPI Order includes a Step-Up Range instruction that would allow the Enhanced RPI Order to provide additional price improvement over the price of the highest-ranked resting order on the same side of the BYX

Book, the Enhanced RPI Order will be given price priority over the highest-ranked resting order, subject to certain conditions discussed *infra*. In order for an Enhanced RPI Order to receive queue priority, the Step-Up Range instruction must allow the Enhanced RPI Order to provide a greater amount of price improvement to an incoming contra-side Retail Order than would otherwise be available from same-side, resting orders on the BYX Book by stepping up to the next half cent midpoint or next full cent for securities priced at or above \$1.00 and to the next minimum price increment for securities priced below \$1.00.<sup>25</sup>

The Exchange believes this proposed change would further the purpose of the Program to attract retail marketable order flow to the Exchange, while also increasing opportunities for price improvement. By offering the Enhanced RPI Order, the Exchange proposes to create an enhancement to its current Program that offers the ability for liquidity providers to earn queue priority to execute against marketable retail order flow on the Exchange. The Enhanced RPI Order would allow Users to post orders at their limit price but step up or down to a higher price (for buy orders) or lower price (for sell orders) in order to execute against marketable retail order flow that is less prone to adverse selection.<sup>26</sup> The Exchange believes that the proposed change will lead to increased participation in the

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<sup>25</sup> Generally, an Enhanced RPI Order is expected to provide at least \$0.005 of price improvement in order to gain price priority over same-side resting orders on the BYX Book, but the Exchange notes that the minimum amount of required price improvement will vary between \$0.001 and \$0.01, based on the order types resting on the BYX Book. In certain instances, Enhanced RPI Orders in securities priced at or above \$1.00 may only need to step up to the NBBO midpoint or from the NBBO midpoint to the next full cent in order to gain price priority over same-side resting orders on the BYX Book (discussed *infra*).

<sup>26</sup> Adverse selection is the phenomenon where the price of a stock drops right after a liquidity provider purchases the stock. Marketable retail order flow is generally seen as more desirable by institutional liquidity providers as executions against retail orders are less prone to adverse selection. The Commission has previously opined that retail liquidity programs may be beneficial to institutional investors as they may be able to reduce their possible adverse selection costs by interacting with retail order flow. See Pilot Approval Order at 71656.

Program by Users seeking to provide liquidity for marketable retail order flow. As a result of increased participation in the Program, the Exchange believes that it will attract additional marketable retail order flow in search of price improvement opportunities.

The Exchange believes that the introduction of the Enhanced RPI Order will complement the existing RPI Order type as it is intended to provide Users with additional, optional functionality that may be utilized when seeking to interact with Retail Orders. The Exchange views the Enhanced RPI Order as a complement to the existing RPI Order because the distinction between the Enhanced RPI Order and the existing RPI Order is simply the addition of the Step-Up Range instruction, which will permit Users to enter an Enhanced RPI Order at a defined limit price but simultaneously permit these Users to have the ability to gain price priority over resting same-side orders on the BYX Book in exchange for providing price improvement. Users will be free to decide whether resting on the BYX Book in order to obtain an execution against a Retail Order at a specific limit price utilizing an RPI Order is more valuable than submitting an Enhanced RPI Order for a chance to earn price priority in exchange for price improvement.

The Exchange also believes that while certain retail liquidity providers will be incentivized to use the proposed Enhanced RPI Order due to its ability to gain price priority, certain retail liquidity providers will simply want the ability to interact with retail order flow and are not concerned with gaining price priority. If the Enhanced RPI Order is successful in attracting additional retail order flow, Users submitting RPI Orders may also benefit as there is additional liquidity against which their RPI Orders may interact if those Retail Orders are not filled by an Enhanced RPI Order. For these reasons, the Enhanced RPI Order and RPI Order should be viewed as complementary order types and should not be seen as competing

with one another. While Enhanced RPI Orders may be entered by any User, the Exchange believes that the majority of Enhanced RPI Orders will be entered by or on behalf of institutional investors that are willing to provide additional price improvement as a way to minimize their adverse selection costs. The Exchange does not believe that Users will be less likely to submit RPI Orders simply because an Enhanced RPI Order type is also available, similar to how Users are not dissuaded from submitting traditional limit orders when a Discretionary Order<sup>27</sup> also exists on the Exchange.

In conjunction with introducing Rule 11.24(a)(4), the Exchange proposes to introduce Rule 11.24(a)(5) in order to define the term RPI Interest as either RPI Orders or Enhanced RPI Orders. The Exchange also proposes to amend Rule 11.24(e) in order to more accurately describe when the Retail Liquidity Identifier is displayed. Additionally, the Exchange proposes to amend Rule 11.24(g) by removing the example currently found in the rule text that describe RPI Order priority. The Exchange notes that Rule 11.24(g) will be inclusive of both RPI Order priority and Enhanced RPI Order priority and as such the example currently contained within Rule 11.24(g) is no longer necessary as it is explained more thoroughly in the proposed rule text. The Exchange also proposes to make corresponding changes within Rule 11.24 to replace certain references to RPI Order with the term RPI Interest in order to have language inclusive of both RPI Orders and Enhanced RPI Orders. Further, the Exchange proposes to delete Rule 11.24(h), as the Exchange proposes to expand the Program to securities priced below \$1.00. The Exchange will announce that the RPI Program has expanded to all securities in a Trade Desk notice, and periodic updates will no longer be required. The Exchange also proposes to delete Rule 11.24(i) as it is

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<sup>27</sup> See Rule 11.9(c)(10).

inapplicable to Retail Orders on the Exchange and was inadvertently added to the rule text.

Finally, the Exchange proposes to clarify throughout Rule 11.24 that RPI Orders and Enhanced RPI Orders will be ineligible to execute at prices equal to or inferior to the Protected NBB or Protected NBO.

Additionally, with the introduction of the Enhanced RPI Order, the Exchange proposes to amend Rule 11.24(a)(2) to permit a Retail Order to be entered as a Mid-Point Peg Order.<sup>28</sup> The Exchange also proposes to amend Rule 11.24(a)(2) to better describe that the time-in-force requirement for all Retail Orders, including those entered as a Mid-Point Peg Order, is required to be Immediate or Cancel (“IOC”). The Exchange believes that allowing the Mid-Point Peg Order instruction on a Retail Order will benefit Users who choose to submit Retail Orders because it will permit a Retail Order to guarantee price improvement at the midpoint or better. The Mid-Point Peg Order instruction will be optional, and not required for Users of Retail Orders.

### RPI Orders

#### *Current RPI Order Definition, Priority, and Order Allocation*

Rule 11.24(a)(3) currently defines an RPI Order as “non-displayed interest on the Exchange that is priced better than the Protected NBB or Protected NBO by at least \$0.001 and that is identified as such.”<sup>29</sup> Rule 11.24(a)(3) also provides that the System will monitor whether RPI buy or sell interest, adjusted by any offset and subject to the ceiling or floor

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<sup>28</sup> See Rule 11.9(c)(9). A Mid-Point Peg Order is a limit order that, after entry into the System, the price of the order is automatically adjusted by the System in response to changes in the NBBO to be pegged to the mid-point of the NBBO, or, alternatively, pegged to the less aggressive of the midpoint of the NBBO or one minimum price variation inside the same side of the NBBO as the order.

<sup>29</sup> Supra note 3.

price, is eligible to interact with incoming Retail Orders. RPI Orders are non-displayed (including the buy or sell interest, the offset, and the ceiling or floor price).<sup>30</sup> Users are not required to submit RPI Orders.<sup>31</sup> An RPI Order may be entered as an odd lot, round lot, or mixed lot.<sup>32</sup>

As stated in current Rule 11.24(g), RPI Orders are ranked in accordance with Rule 11.12(a). Furthermore, under current Rule 11.24(g), competing RPI Orders in the same security are ranked and allocated according to price then time of entry into the System. Executions occur in price/time priority in accordance with Rule 11.12. Any remaining unexecuted RPI interest remains available to interact with other incoming Retail Orders if such interest is at an eligible price. Any remaining unexecuted portion of the Retail Order will cancel or execute in accordance with Rule 11.24(f). The following example illustrates this method:

- Protected NBBO for security ABC is \$10.00 – \$10.05
- User 1 enters an RPI Order to buy ABC at \$10.015 for 500 shares
- User 2 then enters an RPI Order to buy ABC at \$10.02 for 500 shares
- User 3 then enters an RPI Order to buy ABC at \$10.035 for 500 shares

An incoming Retail Order to sell ABC for 1,000 shares executes first against User 3's bid for 500 shares at \$10.035, because it is the best priced bid, then against User 2's bid for 500 shares at \$10.02, because it is the next best priced bid. User 1 is not filled because the entire size of the Retail Order to sell 1,000 shares is depleted. The Retail Order executes

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<sup>30</sup> Id.

<sup>31</sup> Id.

<sup>32</sup> Id.

against RPI Orders in price/time priority.<sup>33</sup>

*Proposed RPI Order Definition*

The Exchange now proposes to amend the definition of RPI Order to more accurately reflect when an RPI Order is eligible to execute against a contra-side Retail Order and at what pricing increments RPI Orders may be entered. The Exchange also proposes to add to its rule text that an RPI Order may be entered as a Primary Peg Order as defined in Rule 11.9(c)(8)(A) and specify at what pricing increments the applicable positive or negative offset must be entered. Additionally, the Exchange proposes to remove references to the “ceiling or floor” price and replace that term with “limit price” as it more accurately describes the price at which an RPI Order entered as a Primary Pegged Order will be eligible to interact with a contra-side Retail Order.

The Exchange proposes to revise the definition of RPI Order under Rule 11.24(a)(3) to state that an RPI Order consists of non-displayed interest that is identified as such. An RPI Order for a security priced at or above \$1.00 must be priced at least \$0.001 better than the Protected NBB or Protected NBO and may be entered in increments of \$0.001. For securities priced below \$1.00, an RPI Order must be priced at least \$0.0001 better than the Protected NBB or Protected NBO and may be priced in \$0.0001 increments. The Exchange will also include language that an RPI Order may be entered at a limit price that is equal to or inferior than the Protected NBB or Protected NBO, but may execute only at prices better than the Protected NBB or Protected NBO. Additionally, the Exchange notes that an RPI

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<sup>33</sup> See Rule 11.24(f) for additional examples of Retail Order designation and interaction with RPI Interest under the current Program. While the example included in current Rule 11.24(g) remains accurate, the Exchange proposes to delete this example from the rule text (discussed *infra*) as its proposed rule text will encompass the above-described behavior.

Order that is ineligible to execute due to not being priced at least \$0.001 (for securities priced at or above \$1.00) or \$0.0001 (for securities priced below \$1.00) better than the Protected NBB or Protected NBO will not be canceled, but will remain on the BYX Book in case the Protected NBBO moves such that the RPI Order becomes eligible to execute at a later time.

Further, the Exchange is proposing to amend Rule 11.24(a)(3) to clarify that an RPI Order may be entered as a Primary Pegged Order (“RPI Primary Pegged Order”), as defined in Rule 11.9(c)(8)(A) and that the ranked price of an RPI Primary Pegged Order will be the price of the order after the order is pegged to the Protected NBB or Protected NBO and the applicable positive (for buy orders) or negative (for sell orders) offset (“Offset Amount”) is applied.<sup>34</sup> For RPI Primary Pegged Orders priced at or above \$1.00, the Offset Amount may be entered in increments of \$0.001 and for RPI Primary Pegged Orders priced below \$1.00, the Offset Amount may be entered in increments of \$0.0001.

#### Proposed Enhanced RPI Order

The Exchange now proposes to introduce an Enhanced RPI Order that Users seeking to provide RPI liquidity may utilize on an optional basis. The proposed Enhanced RPI Order will be eligible to obtain price priority over resting orders in the same security on the same side of the BYX Book in order to execute against a Retail Order by including a Step-Up Range instruction when entered. Enhanced RPI Orders will be ranked in accordance with proposed Rule 11.24(g) (discussed *infra*). In order to effect the proposed change, the

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<sup>34</sup> See Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). A Pegged Order is a limit order that after entry into the System, the price of the order is automatically adjusted by the System in response to changes in the NBBO. A User entering a Pegged Order can specify that such order’s price will offset the inside quote on the same side of the market by an amount (the “Primary Offset Amount”) set by the User (a “Primary Pegged Order”).

Exchange proposes to introduce Rule 11.24(a)(4), which would define an Enhanced RPI

Order as:

- An “Enhanced Retail Price Improvement Order” or “Enhanced RPI Order” is an RPI Order that is designated with a Step-Up Range instruction. A Step-Up Range instruction is an optional, non-displayed instruction that is added to (for buy orders) or subtracted from (for sell orders) the ranked price of an RPI Order and provides a maximum execution price (for buy orders) or minimum execution price (for sell orders) at which a User is willing to execute against contra-side Retail Orders. The Step-Up Range instruction may be priced in increments of \$0.001 for securities priced at or above \$1.00 and securities priced below \$1.00.
- An Enhanced RPI Order may be entered as a limit order, in a sub-penny increment with an explicit limit price, or as a Primary Pegged Order (as defined in Rule 11.9(c)(8)(A)) with an Offset Amount. An Enhanced RPI Order is ranked at its limit price and not the price inclusive of its Step-Up Range instruction.
- An Enhanced RPI Order that is also a Primary Pegged Order (“Enhanced RPI Primary Pegged Order”) must be entered with an Offset Amount and will have its ranked price determined after the application of the Offset Amount, as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). The Step-Up Range instruction of an Enhanced RPI Primary Pegged Order will be applied to the resulting ranked price following the application of the Offset Amount and may cause the Enhanced RPI Primary Pegged Order to execute

at a price that is higher (for buy orders) or lower (for sell orders) than its limit price. An Enhanced RPI Primary Pegged Order priced at or above \$1.00 may have its Offset Amount entered in pricing increments of \$0.001. An Enhanced RPI Primary Pegged Order priced below \$1.00 may have its Offset Amount entered in pricing increments of \$0.0001.

- The System will monitor whether an Enhanced RPI Order, adjusted by any applicable Offset Amount, the order's Step-Up Range instruction, and the order's limit price, is eligible to interact with incoming Retail Orders. An Enhanced RPI Order (including any applicable Offset Amount, the Step-Up Range instruction, and the limit price) remains non-displayed in its entirety. Any User is permitted, but not required, to submit an Enhanced RPI Order. An Enhanced RPI Order may be an odd lot, round lot or mixed lot. An Enhanced RPI Order shall have priority as described in Rule 11.24(g). An Enhanced RPI Order is ineligible to execute at prices equal to or inferior to the Protected NBB (for buy orders) or Protected NBO (for sell orders), however an Enhanced RPI Order may be entered with a limit price that is equal to or inferior to the Protected NBB or Protected NBO. An Enhanced RPI Order that is ineligible to execute because it is priced equal to or inferior to the Protected NBB (for buy orders) or Protected NBO (for sell orders) will not be cancelled and will become eligible to execute against Retail Orders should the Enhanced RPI Order becomes executable at a later time.

The ranked price of an Enhanced RPI Order will be determined by a User's entry of the following into the Exchange: (1) Enhanced RPI buy or sell interest; (2) any applicable

offset; (3) the Step-Up Range instruction; and (4) the limit price. The Step-Up Range instruction of an Enhanced RPI Order is the maximum amount above the order's limit price (for buy orders) or minimum amount below the order's limit price (for sell orders) at which a User is willing to execute. As discussed *infra*, if the Enhanced RPI Order can improve upon resting liquidity on the same side of the BYX Book by stepping up to the nearest full cent (for securities priced at or above \$1.00) or the next minimum pricing increment (for securities priced below \$1.00),<sup>35</sup> it will receive price priority over the resting liquidity on the BYX Book. An Enhanced RPI Order, however, will not improve upon the price of another resting Enhanced RPI Order to receive price priority.<sup>36</sup>

Pursuant to proposed Rule 11.24(g)(2), Enhanced RPI Orders in securities priced at or above \$1.00 may include a Step-Up Range instruction priced in \$0.001 increments, but these orders shall not gain priority over other same-side resting orders on the BYX Book if the Step-Up Range instruction is unable to step up to the NBBO midpoint or the next full cent. Step-Up Range instructions priced in increments finer than \$0.01 will be capped at the maximum executable price based on a valid tick increment or midpoint and will not otherwise be executable at the maximum price of the Step-Up Range instruction.

#### Proposed Retail Order Designation

Currently, under Rule 11.24(f)(2), a resting RPI Order is eligible to execute against a

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<sup>35</sup> Supra note 25. There are certain instances in which an Enhanced RPI Order may only need to provide between \$0.001 - \$0.005 in price improvement in securities priced at or above \$1.00 in order to gain price priority over resting liquidity on the BYX Book.

<sup>36</sup> The Exchange plans to submit a request for an exemption under Regulation NMS Rule 612 that would permit it to accept and rank non-displayed RPI Interest. As will be outlined in the request, the Exchange has received an exemption from Rule 612 for the current Program, but believes it is appropriate to renew its request as the Program seeks to introduce Enhanced RPI Orders even as the fundamental nature of the Program is not changing.

Type 2-designated Retail Order (a “Type 2 Order”)<sup>37</sup> that has exhausted all price improving liquidity on the BYX Book even if the RPI Order is not providing price improvement, as a Type 2 Order is eligible to execute against all marketable liquidity once the order has interacted with all price improving liquidity. The Exchange proposes to amend Rule 11.24(f)(2) to provide that RPI Interest (inclusive of both RPI Orders and the proposed Enhanced RPI Orders) is ineligible to execute at prices equal to or inferior to the Protected NBB or Protected NBO. In the event that an RPI Order is ineligible to execute against a Type 2 Order because it is not providing at least \$0.001 of price improvement in securities priced at or above \$1.00 or at least \$0.0001 of price improvement in securities priced below \$1.00, the Exchange will not cancel the resting RPI Interest. Rather, the RPI Interest will persist on the BYX Book and will become eligible to execute should the Protected NBB or Protected NBO move to a price that permits the RPI Interest to provide price improvement. The proposed change is being made in order to limit RPI Interest to only providing executions that provide price improvement to contra-side Retail Orders, consistent with the definition of an RPI Order, the proposed definition of an Enhanced RPI Order, and the description of RPI Order functionality in the Exchange’s previous Pilot Approval Order and RPI Approval Order.

#### Proposed Order Priority

As discussed above, the proposed Enhanced RPI Order will be ranked according to

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<sup>37</sup> See Rule 11.24(f)(2). A Type 2-designated Retail Order will interact first with available price improving RPI Orders and other price improving liquidity and then any remaining portion of the Retail Order will be executed as an IOC Order pursuant to Rule 11.9(b)(1). A Type 2-designated Retail Order can either be submitted as a BYX Only Order or as an order eligible for routing pursuant to Rule 11.13(a)(2). The Exchange proposes to make clear in Rule 11.24(f)(2) that the remaining portion of a Type 2-designated Retail Order will be ineligible to execute against contra-side RPI Interest that is not priced better than the Protected NBB or Protected NBO.

its limit price then time of entry into the System. With the introduction of the proposed Enhanced RPI Order, the Exchange proposes to reorganize Rule 11.24(g) into Rule 11.24(g)(1) – (3). The Exchange also proposes to rename Rule 11.24(g) as “Order Priority” and remove the current reference to order allocation as the example utilized within current Rule 11.24(g) and shows order allocation will be deleted as discussed *supra*. Proposed Rule 11.24(g) will serve as an introductory paragraph and will contain the existing rule text found in current Rule 11.24(g) that describes order priority with respect to RPI Orders. The Exchange proposes to amend the existing rule text in Rule 11.24(g) to replace RPI Orders with RPI Interest and to clarify that RPI Interest is ineligible to execute at prices that are equal to or inferior to the Protected NBB or Protected NBO. RPI Interest that is ineligible to execute due to being priced equal to or inferior to the Protected NBB or Protected NBO will not be cancelled and will become eligible to execute against Retail Orders should the RPI Interest become priced better than the Protected NBB or Protected NBO at a later time. The Exchange proposes to remove the example of RPI Order priority contained within current Rule 11.24(g)<sup>38</sup> as it is duplicative of proposed rule text which describes that RPI Orders are to be ranked and executed in accordance with Rule 11.12 and also as described in Rule 11.24(g), as applicable. Proposed Rule 11.24(g) will also provide that Enhanced RPI Orders have the ability to gain execution priority over resting same-side orders on the BYX Book with higher price/time priority in the same security if certain criteria is satisfied.

Proposed Rule 11.24(g)(1) describes three instances in which the Step-Up Range instruction of an Enhanced RPI Order will be utilized to determine at what price an Enhanced RPI Order must execute versus a contra-side Retail Order in order to gain price

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<sup>38</sup> Supra footnote 33.

priority over resting same-side orders on the BYX Book with higher price/time priority in the same security. Pursuant to proposed Rule 11.24(g)(1)(A), the Step-Up Range instruction of an Enhanced RPI Order will be utilized when the Step-Up Range instruction is needed to gain priority over a resting same-side order (excluding resting Enhanced RPI Orders) on the BYX Book with higher price/time priority. As discussed *infra* in proposed Rule 11.24(g)(2) and proposed Rule 11.24(g)(3), an Enhanced RPI Order shall gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security if the Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order than would be provided by the resting same-side order on the BYX Book.

Second, under proposed Rule 11.24(g)(1)(B), the Step-Up Range instruction of an Enhanced RPI Order will be utilized in situations where: (i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the ranked price (i.e., its limit price) of the Enhanced RPI Order and all other resting liquidity and (ii) the price of the Enhanced RPI Order following application of the Step-Up Range instruction is priced equal to or higher (lower) than the Retail Order's limit price. In this scenario, an Enhanced RPI Order will execute versus a contra-side Retail Order at the Retail Order's limit price.<sup>39</sup> This situation is also applicable to an Enhanced RPI Order that is also a Primary Pegged Order. The limit price of an Enhanced RPI Order that is also a Primary Pegged Order will be adjusted by any applicable offset and the Step-Up Range instruction applied to the resulting ranked price.

Lastly, as described in proposed Rule 11.24(g)(1)(C), the Step-Up Range instruction of an Enhanced RPI Order will be utilized to determine order book priority when multiple

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<sup>39</sup> See Example 9, *infra*.

Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of resting same-side orders on the BYX Book with higher price/time priority that are not Enhanced RPI Orders. Priority will be given to the Enhanced RPI Order with the Step-Up Range instruction that could result in the highest (for an Enhanced RPI Order to buy) or lowest (for an Enhanced RPI Order to sell) possible execution price for the contra-side Retail Order, even if the resulting execution does not occur at the highest (lowest) maximum execution price that is permitted by the Step-Up Range instruction. The actual execution price provided to the Retail Order will be the price the Enhanced RPI Order needs to step up to as described in proposed Rule 11.24(g)(1)(A) and proposed Rule 11.24(g)(1)(B).

Proposed Rule 11.24(g)(1)(C)(i) describes an exception to utilizing the Step-Up Range instruction in order to determine order book priority and applies when there are multiple Enhanced RPI Orders resting on the BYX Book, no other resting same-side liquidity with higher priority, and an incoming Retail Order to sell (buy) is priced lower (higher) than the ranked prices of the resting Enhanced RPI Orders. In this instance, execution priority will be determined by the higher ranked price and not the Step-Up Range instruction of the Enhanced RPI Orders. An Enhanced RPI Primary Pegged Order will have its priority determined by the ranked price that results after the application of the Offset Amount as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A) and will not include the Step-Up Range instruction. The Enhanced RPI Orders will execute pursuant to Rule 11.12 in standard price/time priority according to their limit prices or resulting ranked prices after application of the applicable positive or negative offset in the case of Enhanced RPI Primary Pegged Orders.

Proposed Rule 11.24(g)(2) provides that for securities priced at or above \$1.00 an

Enhanced RPI Order shall gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security if the Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order, as provided for in proposed Rule 11.24(g)(1)(A) – (C). In order to gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security, an Enhanced RPI Order must be able to step up to the next valid tick increment. Proposed Rules 11.24(g)(2)(A) – (C) provide certain scenarios where an Enhanced RPI Order may only need to provide a half cent of price improvement or less in order to gain priority over resting same-side orders on the BYX Book with higher price/time priority.

Proposed Rule 11.24(g)(2) also provides that Enhanced RPI Orders in securities priced at or above \$1.00 may include a Step-Up Range instruction priced in \$0.001 increments, but these orders shall not gain priority over other same-side resting orders on the BYX Book if the Step-Up Range instruction is unable to step up to the NBBO midpoint or the next full cent. Step-Up Range instructions priced in increments finer than \$0.01 will be capped at the maximum executable price based on a valid tick increment or midpoint and will not be executable at the maximum price of the Step-Up Range instruction. Further, proposed Rule 11.24(g)(2) states that if there are no resting Enhanced RPI Orders on the BYX Book that are able to provide a greater amount of price improvement than other resting same-side orders on the BYX Book with higher price/time priority in the same security, then an incoming Retail Order may execute against those resting same-side orders on the BYX Book in price/time priority in accordance with Rule 11.12. Any remaining unexecuted portion of the Retail Order will cancel or execute in accordance with proposed Rule 11.24(f). Additionally, proposed Rule 11.24(g)(2) provides that the Step-Up Range

instruction of an Enhanced RPI Order shall have priority over the discretionary offset of a Discretionary Order.<sup>40</sup>

Proposed Rule 11.24(g)(2)(A) provides that if the NBBO midpoint is priced in a half-cent increment (e.g., \$10.005) and the best-priced resting order on the BYX Book is ranked at the NBBO midpoint (e.g., \$10.005), the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the next full cent above (for buy orders) or below (for sell orders) the NBBO midpoint (e.g., \$10.01 for buy orders or \$10.00 for sell orders). Proposed Rule 11.24(g)(2)(B) provides that if the NBBO midpoint is priced in a half-cent increment (e.g., \$10.005) and the best-priced resting order on the BYX Book to buy (sell) is ranked at the full cent below (above) the NBBO midpoint (e.g., \$10.00 or \$10.01), the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the NBBO midpoint (e.g., \$10.005 or beyond). In the event that an RPI Order priced in an \$0.001 increment is resting on the BYX Book, proposed Rule 11.24(g)(2)(C) provides that the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the closer of the NBBO midpoint or the next full cent above (for buy orders) or below (for sell orders) the NBBO midpoint in order to gain priority over the resting RPI Order (e.g., an Enhanced RPI Order with a limit price of \$10.00 must contain a Step-Up Range instruction of at least \$0.005 in order to gain priority over a resting RPI Order with a limit price of \$10.001).

Proposed Rule 11.24(g)(3) provides that for securities priced below \$1.00, Enhanced RPI Orders shall be granted price priority over resting same-side orders on the BYX Book if

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<sup>40</sup> See Rule 11.12 (Priority of Orders) section *infra* for additional discussion of the Exchange's proposal to amend its order priority rules in order to account for the Step-Up Range instruction of an Enhanced RPI Order.

the Enhanced RPI Order's Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order by stepping up to the next minimum price increment. The Exchange notes that the System does not support fractional penny quotations or executions priced in \$0.00001 increments and finer in securities priced below \$1.00 but does support quotations and executions in fractional pennies priced in increments up to \$0.0001.

Proposed Amendment to Rule 11.12 (Priority of Orders)

In conjunction with the proposed reorganization of Rule 11.24(g), the Exchange also proposes to amend current Rule 11.12 (Priority of Orders) in order to introduce a priority band for the Step-Up Range instruction of an Enhanced RPI Order. The Exchange proposes to replace the current text of Rule 11.12(a)(2)(F) with "The Step-Up Range instruction of an Enhanced RPI Order as set forth in Rule 11.24[;]." In addition, the Exchange proposes to move the current text of Rule 11.12(a)(2)(F) ("Discretionary portion of Discretionary Orders as set forth in Rule 11.9(c)(9)") to Rule 11.12(a)(2)(G), revise the rule reference found in current Rule 11.12(a)(2)(F) to correct an error, and introduce new Rule 11.12(a)(2)(H), which will contain the text ("Supplemental Peg Orders") currently found in Rule 11.12(a)(2)(G).

Introducing a new priority band for the Step-Up Range instruction associated with an Enhanced RPI Order will establish that in situations where an Enhanced RPI Order is executable inside its Step-Up Range instruction at the same price as a Discretionary Order that is executable inside the discretionary portion of its order, the Step-Up Range instruction associated with the Enhanced RPI Order will have priority over the discretionary portion of the Discretionary Order. The Exchange believes that assigning priority to the Step-Up

Range instruction of the Enhanced RPI Order is appropriate because Users choosing to submit Enhanced RPI Orders would be providing price improvement over other same-side resting orders on the BYX Book in order to trade at higher (for buy orders) or lower (for sell orders) prices when needed in order to execute against a contra-side Retail Order. Given that a User submitting an Enhanced RPI Order with a Step-Up Range instruction would be providing price improvement (i.e., a more favorable price) in order to execute against an incoming contra-side Retail Order, the Exchange believes it is appropriate to rank the Step-Up Range instruction ahead of the discretionary portion of a Discretionary Order in proposed Rule 11.12(a)(2).

The Exchange has included the examples below to show how order priority with an Enhanced RPI Order will be determined. In the examples below, the Retail Liquidity Identifier (discussed *infra*) is presumed to be displayed unless stated otherwise. Additionally, all Retail Orders described in the examples are presumed to be Type 1-designated Retail Orders<sup>41</sup> unless otherwise specified.

**Example 1**<sup>42</sup>

In order to illustrate priority of an Enhanced RPI Order over other Non-Displayed Orders<sup>43</sup> resting on the BYX Book, consider the following example:

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<sup>41</sup> See Rule 11.24(f)(1). A Type 1-designated Retail Order will interact with available contra-side RPI Order and other price improving contra-side interest but will not interact with other available interest in the System that is not offering price improvement or route to other markets. The portion of a Type 1-designated Retail Order that does not execute against contra-side RPI Orders or other price improving liquidity will be immediately and automatically cancelled. The Exchange notes that proposed Rule 11.24(f)(1) will be updated to reflect “contra-side RPI Interest” to capture both RPI Orders and Enhanced RPI Orders.

<sup>42</sup> See proposed Rule 11.24(g)(1)(A) and Rule 11.24(g)(2)(A).

<sup>43</sup> See Rule 11.9(c)(11). A Non-Displayed Order is a market or limit order that is not displayed on the Exchange.

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Mid-Point Peg<sup>44</sup> order to buy ABC at \$10.03 for 100. User 1's order is ranked at \$10.025 as the User elected that the Mid-Point Peg order be pegged to the mid-point of the NBBO.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.01 and is willing to step-up to a maximum price of \$10.03.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order for 100 will execute against User 2's Enhanced RPI Order at \$10.03. While User 1's order is ranked at a higher price (\$10.025) than User 2's order (\$10.01), User 2's order includes a Step-Up Range instruction of \$0.02 and is willing to step up to a maximum price of \$10.03, which provides additional price improvement to User 3's Retail Order than User 1's Mid-Point Peg Order. As User 2's order provides an additional \$0.005 of price improvement over User 1's midpoint price, the Exchange gives priority to User 2's Enhanced RPI Order.

**Example 2<sup>45</sup>**

There are two situations in which an Enhanced RPI Order may only need to step-up one-half cent in order to earn queue priority in securities priced at or above \$1.00. First, when the NBBO midpoint is priced in a half cent and the Enhanced RPI Order is stepping up from the half-cent midpoint to the next full cent in order to provide price improvement

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<sup>44</sup> Supra note 28.

<sup>45</sup> See proposed Rule 11.24(g)(1)(A) and Rule 11.24(g)(2)(B).

(see Example 1 above). The second instance occurs when the best-priced resting order on the BYX Book is ranked at a whole cent, and the NBBO midpoint is priced in a half cent increment, the Enhanced RPI Order will only need to step up to the NBBO midpoint in order to earn queue priority. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.02 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.03.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order for 100 will execute against User 2's Enhanced RPI Order at \$10.025. While User 1's order is ranked at a higher price (\$10.02) than User 2's order (\$10.01), User 2 has included a Step-Up Range instruction of \$0.02 on its order and is willing to step up to a maximum price of \$10.03 in order to provide additional price improvement as compared to other orders resting on the BYX Book. Even though User 2's order may execute up to a price of \$10.03, it only needs to step up to the NBBO midpoint of \$10.025. User 2's Enhanced RPI Order thus provides price improvement at the NBBO midpoint over User 1's ranked price of \$10.02 and is granted priority over User 1's Non-Displayed Order.

**Example 3<sup>46</sup>**

In most instances, an Enhanced RPI Order will need to step-up a full penny in order to earn queue priority. Consider the following:

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<sup>46</sup> See proposed Rule 11.24(g)(1)(A).

- The Protected NBBO for security ABC is \$10.00 x \$10.10.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.03 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.04. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order for 100 will execute against User 2's Enhanced RPI Order at \$10.04. While User 1's order is ranked at a higher price (\$10.03) than User 2's order (\$10.01), User 2 has included a Step-Up Range instruction of \$0.04 on its order and is willing to step up to a maximum price of \$10.05 in order to provide additional price improvement as compared to other orders resting on the BYX Book. Even though User 2's order may execute up to a price of \$10.05, it only needs to provide one penny of price improvement above User 1's ranked price of \$10.03 in order to earn queue priority.

**Example 4<sup>47</sup>**

There may be instances where there is no other liquidity resting on the BYX Book against which the Enhanced RPI Order can step up against. In these instances, the Enhanced RPI Order will trade at its ranked price. Consider the following example.

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.015. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.025.

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<sup>47</sup>

See proposed Rule 11.24(g).

- User 2 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 2's Retail Order for 100 will execute against User 1's Enhanced RPI Order at its limit price of \$10.01 as there are no better-priced orders resting on the BYX Book against which User 1 would need to provide greater price improvement to User 2.

**Example 5<sup>48</sup>**

There may be instances where there is no other liquidity resting on the BYX Book against which the Enhanced RPI Order can step up against. In these instances, the Enhanced RPI Order will trade at its ranked price. Consider the following example.

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.001 for 100. User 1's Step-Up Range instruction is \$0.015. User 1's order is ranked at \$10.001 and is willing to step up to a maximum price of \$10.016.
  - User 2 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 2's Retail Order for 100 will execute against User 1's Enhanced RPI Order at its limit price of \$10.001 as there are no better-priced orders resting on the BYX Book against which User 1 would need to provide greater price improvement to User 2.

**Example 6<sup>49</sup>**

There may be instances where an Enhanced RPI Order has a ranked price equal to the NBB (NBO), there is no other liquidity resting on the BYX Book against which the

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<sup>48</sup> See proposed Rule 11.24(g).

<sup>49</sup> See proposed Rule 11.24(g). See also proposed Rule 11.24(a)(4).

Enhanced RPI Order can step up against, and a contra-side Retail Order is entered with a ranked price equal to the NBB (NBO). In this instance, the Exchange will not utilize the Step-Up Range instruction to create an execution. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.00 for 100. User 1's Step-Up Range instruction is \$0.001. User 1's order is ranked at \$10.00 and is willing to step up to a maximum price of \$10.001. The Retail Liquidity Identifier is not displayed as the ranked price of \$10.00 is equal to the NBB and the Retail Liquidity Identifier will only display when there is RPI Interest priced at least \$0.001 better than the Protected NBB or Protected NBO.
  - User 2 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** No execution will occur. User 1's Enhanced RPI Order has a ranked price equal to the Protected NBB at \$10.00. User 2's Retail Order is entered with a ranked price of \$10.00. Pursuant to proposed Rule 11.24(a)(4), an Enhanced RPI Order is ineligible to execute if it is priced equal to or inferior to the Protected NBB and will not be canceled. In this instance, there is no other resting liquidity on the BYX Book for which the Step-Up Range instruction would be utilized to gain queue priority against. As such, the Exchange does not believe it is appropriate to utilize the Step-Up Range instruction of the Enhanced RPI Order to create an execution that otherwise would not occur. Since no execution occurs, User 2's Retail Order is cancelled due to its time-in-force of IOC.

**Example 7<sup>50</sup>**

Enhanced RPI Orders will only have priority against other better-priced liquidity resting on the BYX Book in the event that the Enhanced RPI Order can step-up to the next half cent or full cent. In the example below, the Enhanced RPI Order is unable to step up against the best priced order on the BYX Book but is able to step up against an order ranked at the next best price level. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.04 for 100.
  - User 2 enters a Non-Displayed Order to buy ABC at \$10.02 for 100.
  - User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.03. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.04.
  - User 4 enters a Retail Order to sell ABC at \$10.00 for 150.
- **RESULT:** User 4's Retail Order will execute 100 shares first with User 1's Non-Displayed Order as User 1's Non-Displayed Order has price priority over the orders submitted by Users 2 and 3. While User 3's Enhanced RPI Order includes a Step-Up Range instruction of \$0.03 and is willing to execute up to a maximum price of \$10.04, the Step-Up Range instruction does not provide greater price improvement for User 4's Retail Order as compared to User 1's Non-Displayed Order and as such, User 3's Enhanced RPI Order does not have priority over User 1's Non-Displayed Order. Once User 4's Retail Order executes against User 1's Non-Displayed Order, 50 shares remain on User 4's Retail Order. User 4's Retail Order will then execute

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See proposed Rule 11.24(g)(1)(A) and Rule 11.24(g)(2)(A).

its remaining 50 shares with User 3's Enhanced RPI Order at a price of \$10.025.

While User 2's Non-Displayed Order is ranked at a higher price (\$10.02) than User 3's Enhanced RPI Order (\$10.01), User 3's Enhanced RPI Order has a Step-Up Range instruction of \$0.03 and is willing to execute up to a maximum price of \$10.04 and User 2's Non-Displayed Order does not contain a Step-Up Range instruction. As User 3's Enhanced RPI Order is willing to provide greater price improvement as compared to a better-priced order resting on the same side of the BYX Book, it is given priority over User 2's Non-Displayed Order. User 3's Enhanced RPI Order executes 50 shares against User 4's Non-Displayed Order at a price of \$10.025 because it provides one-half cent of price improvement over User 2's ranked price of \$10.02.

**Example 8<sup>51</sup>**

Enhanced RPI Orders will execute within their Step-Up Range instruction when the incoming Retail Order's price is not executable at the Enhanced RPI Order's ranked price.

Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.03. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.04.
  - User 2 enters a Retail Order to sell ABC at \$10.03 for 100.
- **RESULT:** User 2's Retail Order will execute with User 1's Enhanced RPI Order at \$10.03 as the limit price of User 2's Retail Order (\$10.03) is within the maximum

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<sup>51</sup> See proposed Rule 11.24(g)(1)(B).

price provided by User 1's Step-Up Range instruction.

**Example 9**<sup>52</sup>

When there are multiple Enhanced RPI Orders resting on the BYX Book, no other same side liquidity with higher priority, and the contra-side Retail Order is priced higher (for buy orders) or lower (for sell orders) than the resting Enhanced RPI Orders' ranked prices, execution priority will be determined by the higher ranked price and not by the Step-Up Range instructions of the Enhanced RPI Orders. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.02 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.02 and is willing to step up to a maximum price of \$10.04.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order will execute with User 2's Enhanced RPI Order at \$10.02 because User 2's Enhanced RPI Order has price priority over User 1's Enhanced RPI Order due to its higher ranked price of \$10.02. Given that User 3's Retail Order was priced lower than the resting Enhanced RPI Orders' ranked prices at its time of entry, the Exchange believes that priority should be determined by using the ranked price of the Enhanced RPI Orders resting on the BYX Book at the time of User 3's Retail Order entry.

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<sup>52</sup> See proposed Rule 11.24(g)(1)(C)(i).

**Example 10<sup>53</sup>**

The Step-Up Range instruction will be used to determine order book priority in situations where: i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the Enhanced RPI Order's limit price and all other resting liquidity in the same security and ii) the Enhanced RPI Order's Step-Up Range instruction is priced equal to or higher (lower) than the Retail Order's limit price. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters a Non-Displayed Order to buy ABC at \$10.02 for 100. User 2's order is ranked at \$10.02.
  - User 3 enters a Retail Order to sell ABC at \$10.03 for 100.
- **RESULT:** User 3's order will execute with User 1's Enhanced RPI Order at \$10.03 because i) User 3's Retail Order to sell was entered at a higher price than the ranked price of both User 1 and User 2's orders; and ii) the maximum price provided by the Step-Up Range instruction of User 1's Enhanced RPI Order is higher (\$10.05) than the limit price of User 3's Retail Order (\$10.03). Even though User 2's ranked price is higher than User 1's ranked price, User 2's order is not marketable against User 3's Retail Order. User 3's Retail Order would otherwise be unable to execute if the Exchange did not look to the price improvement provided by User 1's Step-Up Range instruction to permit an execution between User 1 and User 3.

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See proposed Rule 11.24(g)(1)(B).

**Example 11**<sup>54</sup>

The Step-Up Range instruction will be used to determine order book priority in situations where multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of higher priority orders resting on the BYX Book. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.02 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.02 and is willing to step up to a maximum price of \$10.04.
  - User 3 enters a Non-Displayed Order to buy ABC at \$10.03 for 100. User 3's order is ranked at \$10.03.
  - User 4 enters a Retail Order to sell ABC at \$10.03 for 100.
- **RESULT:** User 4's Retail Order will execute with User 1's Enhanced RPI Order at \$10.04 because the Exchange looks to the Step-Up Range instruction to determine order book priority when there are multiple Enhanced RPI Orders resting on the BYX Book that are willing to provide additional price improvement as compared to other orders resting on the BYX Book. While both User 1 and User 2 can execute at a price of \$10.04, User 1's Enhanced RPI Order can result in a higher maximum possible execution price (step up range of \$0.04; maximum price of \$10.05) as

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See proposed Rule 11.24(g)(1)(C).

compared to User 2's Enhanced RPI Order (step up range of \$0.02; maximum price of \$10.04). As such, User 1's Enhanced RPI Order is given priority ahead of User 2's Enhanced RPI Order to execute against User 4's Retail Order. In this instance, when there are multiple Enhanced RPI Orders that can provide price improvement to the contra-side Retail Order, the Exchange believes it is appropriate to grant order book priority to the Enhanced RPI Order containing the Step-Up Range instruction that could result in the highest (in the event of a buy order) or lowest (in the event of a sell order) potential maximum execution price, even if the resulting execution does not occur at the highest (lowest) maximum execution price. By granting execution priority to the User who's Enhanced RPI Order results in the highest (lowest) potential maximum execution price, the Exchange is encouraging Users to submit aggressively priced orders. As such, the Exchange believes it is appropriate to give priority to User 1's Enhanced RPI Order in this instance because User 1's Enhanced RPI Order (Step-Up Range instruction of \$0.04; maximum price of \$10.05) could potentially result in a higher maximum execution price than User 2's Enhanced RPI Order (Step-Up Range instruction of \$0.02; maximum price of \$10.04) and is therefore willing to provide additional price improvement to Retail Orders as compared to User 2's Enhanced RPI Order.

**Example 12<sup>55</sup>**

Enhanced RPI Orders will have price priority over resting RPI Orders (that do not contain a Step-Up Range instruction) on the BYX Book so long as the Step-Up Range instruction of the Enhanced RPI Order is greater than the limit price of the resting RPI order.

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<sup>55</sup> See proposed Rule 11.24(g)(1)(A).

Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters an RPI Order to buy ABC at \$10.02.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order will execute with User 1's Enhanced RPI Order at a price of \$10.025 because User 1's Enhanced RPI Order containing a Step-Up Range instruction allows User 3's Retail Order to receive an additional one-half cent price improvement as compared to the ranked price of User 2's RPI Order. While User 2's RPI Order had a higher ranked price (\$10.02) than User 1's Enhanced RPI Order (\$10.01), User 2's RPI Order did not contain a Step-Up Range instruction. Given that Enhanced RPI Orders are designed to provide price improvement against all resting orders on the BYX Book, the Exchange believes this factor favors using the price improvement provided by the Step-Up Range instruction in order to determine priority in situations where there are both resting RPI and Enhanced RPI Orders on the BYX Book. While RPI Orders do provide at least \$0.001 of price improvement as compared to the Protected NBBO, Enhanced RPI Orders allow for price improvement to the next valid half cent or full cent as the transaction is priced above \$1.00. Thus, using the Step-Up Range instruction to determine priority when RPI Orders are resting on the BYX Book results in an increased amount of price improvement for the contra-side Retail Order.

**Example 13<sup>56</sup>**

There may be situations in which an Enhanced RPI Order that is granted order book priority over a resting same-side RPI Order will provide between \$0.001 - \$0.004 of price improvement over the same-side order when stepping up to the next NBBO midpoint or next full cent. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an RPI Order to buy ABC at \$10.024 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.04. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order executes against User 2's Enhanced RPI Order at a price of \$10.025 because it is able to earn queue priority by providing price improvement at the NBBO midpoint. While User 1's RPI Order (\$10.024) had a higher ranked price than User 2's Enhanced RPI Order (\$10.01), User 2's Enhanced RPI Order contains a Step-Up Range instruction that is willing to step up to a maximum price of \$10.05. As discussed in footnote 25 *supra*, the Exchange believes that it is appropriate to grant priority to an Enhanced RPI Order with a Step-Up Range instruction that provides at least \$0.001 of price improvement to the Retail Order and permits the Enhanced RPI Order to step up to the next NBBO midpoint or next full cent when there is a resting RPI Order on the BYX Book in a security priced at or above \$1.00. While the Step-Up Range instruction of the Enhanced RPI

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See proposed Rule 11.24(g)(1)(A).

Order is only providing \$0.001 of price improvement as compared to the RPI Order with a limit price of \$10.024, the total amount of price improvement as compared to the Retail Order's limit price of \$10.00 is \$0.025.

**Example 14<sup>57</sup>**

Enhanced RPI Orders may also improve against displayed orders resting on the BYX Book in order to provide price improvement to a contra-side Retail Order. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$9.99 for 100. User 1's Step-Up Range instruction is \$0.06. User 1's order is ranked at \$9.99 and is willing to step up to a maximum price of \$10.05. The Retail Liquidity Identifier is not displayed as the limit price of \$9.99 is below the NBB and the Retail Liquidity Identifier will only display when there is RPI Interest priced at least \$0.001 better than the Protected NBB or Protected NBO.
  - User 2 enters a displayed order to buy ABC at \$10.00 for 100.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order will execute with User 1's Enhanced RPI Order at a price of \$10.01. While User 2's displayed order is displayed and ranked at a higher price (\$10.00) than User 1's Enhanced RPI Order (\$9.99), User 1's Enhanced RPI Order includes a Step-Up Range instruction of \$0.06 on its order, which permits the order to execute up to a maximum price of \$10.05. In this instance, executing User 2's displayed order at \$10.00 does not provide any price improvement to the Retail

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<sup>57</sup>

See proposed Rule 11.24(g)(1)(A).

Order when User 1's Enhanced RPI Order is resting on the BYX Book and is willing to provide additional price improvement to Order 3 than Order 2 is willing to provide. User 1's Enhanced RPI Order is willing to step up to the next full cent above \$10.00 (in this case, \$10.01), which provides a full penny of price improvement to User 3's Retail Order. As such, this is the price at which User 3's Retail Order executes with User 1's Enhanced RPI Order.

**Example 15**<sup>58</sup>

The ranked price of an Enhanced RPI Primary Pegged Order is the price that results after the application of the Offset Amount, as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). The Step-Up Range instruction is applied to an Enhanced RPI Primary Pegged Order following the application of the Offset Amount. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.03 for 100.
  - User 2 enters an Enhanced RPI Primary Pegged Order to buy ABC at \$10.02 for 100. User 2's Step-Up Range instruction is \$0.03. User 2's order includes an offset of \$0.01. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.04.
- The Protected NBBO for security ABC changes to \$10.01 x \$10.05.
  - User 2's Enhanced RPI Primary Pegged Order is now ranked at \$10.02 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.01 for 100.

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<sup>58</sup>

See proposed Rule 11.24(g)(1)(A).

- **RESULT:** User 3's Retail Order will execute with User 2's Enhanced RPI Order at a price of \$10.04 because User 2's Enhanced RPI Order includes a Step-Up Range instruction of \$0.03 and is willing to execute up to a maximum price of \$10.05 (based on the Protected NBBO and the offset of \$0.01 at the time User 3's order is entered) in order to provide additional price improvement as compared to other orders resting on the BYX Book. While User 1's order has a higher limit price (\$10.03) than User 2's Enhanced RPI Order (\$10.02, based on the Protected NBBO and the offset of \$0.01 at the time User 3's order is entered), User 2's Enhanced RPI Order is given queue priority due to its ability to provide \$0.01 of price improvement over User 1's order.

**Example 16**<sup>59</sup>

Enhanced RPI Orders may also improve upon resting orders that are BYX Post Only Orders in order to provide price improvement to contra-side Retail Orders. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters BYX Post Only Order to buy ABC at \$10.02 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.04. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 2's Enhanced RPI Order executes against User 3's Retail Order at \$10.03. While User 1's BYX Post Only Order is ranked at a higher price (\$10.02)

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<sup>59</sup> See proposed Rule 11.24(g)(1)(A).

than User 2's order, User 2's Enhanced RPI Order is willing to step-up \$0.04 over the best-priced resting order to gain queue priority. While User 2 can step-up to a price of \$10.05, User 2's Enhanced RPI Order only needs to step-up to a price of \$10.03 in order to gain queue priority over User 1's BYX Post Only Order.

**Example 17<sup>60</sup>**

Enhanced RPI Orders may improve upon resting orders that are BYX Post Only Orders appended with a Price Adjust instruction in order to provide price improvement to contra-side Retail Orders. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - There is no offer on BYX at \$10.05.
  - User 1 enters a BYX Post Only Order (Price Adjust) to buy ABC at \$10.05 for 100. User 1's order is displayed and ranked at \$10.04.
  - Protected NBBO updates to \$10.04 x \$10.05.
  - User 2 enters a displayed BYX Post Only Order to sell ABC at \$10.05 for 100. User 2's order is displayed and ranked at \$10.05.
  - User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.04. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 4 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Enhanced RPI Order executes against User 4's Retail Order at \$10.045. While User 1's BYX Post Only Order with Price Adjust is ranked at a higher price (\$10.04) than User 3's order (\$10.01), User 3's Enhanced RPI Order is

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<sup>60</sup> See proposed Rule 11.24(g)(1)(A).

willing to step up to a maximum price of \$10.05 to gain queue priority. While User 3 is willing to step up to a maximum price of \$10.05, User 3's Enhanced RPI Order only needs to step up to the NBBO midpoint of \$10.045 in order to earn queue priority. User 3's Enhanced RPI Order does not execute against User 2's displayed BYX Post Only Order with a ranked price of \$10.05 even though it is willing to step up to a maximum price of \$10.05 because User 2's BYX Post Only Order is not a Retail Order. Enhanced RPI Orders may only execute against contra-side Retail Orders.

**Example 18<sup>61</sup>**

Enhanced RPI Orders in securities priced at or above \$1.00<sup>62</sup> may not be able to improve upon resting orders if there is a displayed bid or offer that prevents the Step-Up Range instruction of the Enhanced RPI Order from being able to provide price improvement to a contra-side Retail Order. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - There is no offer on BYX at \$10.05.
  - User 1 enters a BYX Post Only Order (Display Price Slide) to buy ABC at \$10.05 for 100. User 1's order is displayed at \$10.04 and ranked non-displayed at \$10.05.
  - Protected NBBO updates to \$10.04 x \$10.05.
  - User 2 enters a displayed BYX Post Only Order to sell ABC at \$10.05 for 100. User 2's order is displayed and ranked at \$10.05.

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<sup>61</sup> See proposed Rule 11.24(g)(1)(A).

<sup>62</sup> See rule 11.9(c)(6). The Exchange does not currently accept BYX Post Only Orders in securities priced below \$1.00.

- The executable price of User 1's order is adjusted to \$10.045.<sup>63</sup>
- User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.04. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
- User 4 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 1's displayed BYX Post Only Order executes against User 4's Retail Order at \$10.045. While User 3's Enhanced RPI Order is willing to step up to a maximum price of \$10.05 to gain queue priority, User 3's Enhanced RPI Order is not eligible to trade at \$10.05 while the Exchange has a displayed offer at \$10.05. The Exchange does not permit User 3's Enhanced RPI Order to utilize its Step-Up Range instruction to step up to a price of \$10.046 as that is not an NBBO midpoint or the next full cent. As such, User 4's Retail Order can only execute against User 1's displayed BYX Post Only Order at a price of \$10.045.

**Example 19<sup>64</sup>**

Enhanced RPI Orders in securities priced below \$1.00 similarly may not be able to improve upon resting orders if there is a displayed bid or offer that prevents the Step-Up Range instruction of the Enhanced RPI Order from being able to provide price improvement to a contra-side Retail Order. Consider the following example:

- The Protected NBBO for security ABC is \$0.50 x \$0.51.

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<sup>63</sup> See Rule 11.13(a)(4)(D). For bids or offers priced at or above \$1.00, in the event that an incoming order is a market order or is a limit order priced more aggressively than the displayed order, the Exchange will execute the incoming order at, in the case of an incoming sell order, one-half minimum price variation less than the price of the displayed order, and, in the case of an incoming buy order, at one-half minimum price variation more than the price of the displayed order.

<sup>64</sup> See proposed Rule 11.24(g)(1)(A).

- There is no offer on BYX at \$0.51.
- User 1 enters a displayed order (Price Adjust) to buy ABC at \$0.51 for 100.  
User 1's order is displayed and ranked at \$0.5099.
- Protected NBBO updates to \$0.5099 x \$0.51.
- User 2 enters a displayed order to sell ABC at \$0.51 for 100. User 2's order is displayed and ranked at \$0.51.
- User 3 enters an Enhanced RPI Order to buy ABC at \$0.5090 for 100. User 3's Step-Up Range instruction is \$0.001. User 3's order is ranked at \$0.5090 and is willing to step up to a maximum price of \$0.51.
- User 4 enters a Retail Order to sell ABC at \$0.5099 for 100.
- **RESULT:** User 4's Retail Order executes against User 1's displayed order at \$0.5099. While User 3's Enhanced RPI Order is willing to step up to a maximum price of \$0.51 to gain queue priority, User 3's Enhanced RPI Order is not eligible to trade at \$0.51 while the Exchange has a displayed offer at \$0.51. The Exchange does not permit User 3's Enhanced RPI Order to utilize its Step-Up Range instruction to step up to a price of \$0.50995 as the Exchange does not execute orders priced out to five decimal places in securities priced below \$1.00.<sup>65</sup> As such, the Step-Up Range instruction of User 3's Enhanced RPI Order cannot earn queue priority and User 4's Retail Order can only execute against User 1's displayed order at a price of \$0.5099.

**Example 20<sup>66</sup>**

Enhanced RPI Orders will also be available for securities priced below \$1.00. In

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<sup>65</sup> See Rule 11.11(a)(2). The Exchange currently accepts and ranks orders priced below \$1.00 in \$0.0001 increments.

<sup>66</sup> See proposed Rule 11.24(g)(1)(A).

order for an Enhanced RPI Order in a security priced below \$1.00 to gain queue priority over a same-side resting order, the Enhanced RPI Order must be able to step up to the next minimum price increment. Consider the following example:

- The Protected NBBO for security ABC is \$0.2001 x \$0.2025.
  - User 1 enters a Non-Displayed Order to buy ABC at \$0.2003 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$0.2002 for 100. User 2's Step-Up Range instruction is \$0.001. User 2's order is ranked at \$0.2002 and is willing to step up to a maximum price of \$0.2012.
  - User 3 enters a Retail Order to sell ABC at \$0.2001.
- **RESULT:** User 2's Enhanced RPI Order executes against User 3's Retail Order at a price of \$0.2004. While User 1's Non-Displayed Order is ranked at a higher price (\$0.2003) than User 2's Enhanced RPI Order (\$0.2002), User 2's Enhanced RPI Order included a Step-Up Range instruction of \$0.001 and is willing to execute at a price up to \$0.2012 in order to gain queue priority. The next minimum price increment above \$0.2003 is \$0.2004, which is inside User 2's Step-Up Range instruction and as such, User 2's order will have queue priority over User 1's order.

**Example 21<sup>67</sup>**

The below example is included to show the proposed change to Rule 11.24(f)(2) that does not permit a Type 2-designated Retail Order to execute against resting RPI Interest that is priced equal to the Protected NBB or Protected NBO.

- The Protected NBBO for security ABC is \$10.00 x \$10.05
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.02 for 100.

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<sup>67</sup>

See proposed Rule 11.24(f)(2); see also proposed Rule 11.24(g).

- User 2 enters an Enhanced RPI Order to buy ABC at \$10.00 for 100. User 2's Step-Up Range instruction is \$0.03. User 2's order is ranked at \$10.00 and is willing to step up to a maximum price of \$10.03. The Retail Liquidity Identifier is not displayed because the limit price of User 2's order is not priced at least \$0.001 better than the Protected NBB.
- User 3 enters an RPI Order to buy ABC at \$10.00 for 100. The Retail Liquidity Identifier is not displayed because the limit price of User 3's order is not priced at least \$0.001 better than the Protected NBB.
- User 4 enters a Non-Displayed Order to buy ABC at \$10.00 for 100.
- User 5 enters a Type 2-designated Retail Order to sell ABC at \$10.00 for 400.
- **RESULT:** User 2's Enhanced RPI Order executes against User 5's Type 2 Order for 100 at a price of \$10.025 because the best-priced resting order on the BYX Book is ranked at a whole cent (\$10.02), and the NBBO midpoint is priced in a half cent increment.<sup>68</sup> User 1's Non-Displayed Order then executes against User 5's Type 2 Order for 100 at a price of \$10.02 because User 1's order is priced better than the NBBO.<sup>69</sup> User 4's Non-Displayed Order then executes against 5's Type 2 Order for 100 at a price of \$10.00.<sup>70</sup> The remaining 100 shares of User 5's Type 2 Order are then cancelled or routed to an away market based on User 5's instruction. This example demonstrates proposed order priority where a Type 2 Order has a remaining quantity after executing against all price improving liquidity. Under

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<sup>68</sup> See proposed Rule 11.24(g)(1)(A) and proposed Rule 11.24(g)(2)(B).

<sup>69</sup> See Rule 11.12(a)(1).

<sup>70</sup> See proposed Rule 11.24(a)(3) and proposed Rule 11.24(f)(2).

current Rule 11.24(f)(2), order priority would differ in that User 5's Type 2 Order would execute against User 3's RPI Order at \$10.00 prior to executing against User 4's Non-Displayed Order due to price/time priority and would leave no remaining quantity to either cancel back or route to an away market.

**Example 22<sup>71</sup>**

Step-Up Range instructions priced in increments finer than \$0.01 will be capped at the maximum executable price based on a valid tick increment or NBBO midpoint and will not be executable at the maximum price of the Step-Up Range instruction. If a Member chooses to enter a Step-Up Range instruction priced in an increment finer than \$0.01, the Member's Enhanced RPI Order may not be able to gain price priority over other same-side resting orders on the BYX Book.

- The Protected NBBO for security ABC is \$10.00 x \$10.05
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.01 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.01. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.02.
  - User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.013. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.023. User 3's order is subject to a cap at \$10.02 because \$10.023 is not a valid tick increment and \$10.02 is the closest valid tick increment to the maximum price provided by the Step-Up Range instruction.

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<sup>71</sup>

See proposed Rule 11.24(g)(2).

- User 4 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 4's Retail Order will trade with User 2's Enhanced RPI Order at a price of \$10.02 because User 3's Enhanced RPI Order is subject to a cap at \$10.02 and User 2's Enhanced RPI Order has time priority. While User 3's Enhanced RPI Order included a Step-Up Range instruction of \$0.013 and was willing to step up to a maximum price of \$10.023, which is greater than User 2's maximum price of \$10.02, User 3's Enhanced RPI Order is capped at a price of \$10.02 because \$10.023 is not a valid tick increment and therefore is not able to execute at a price of \$10.023. As both User 2 and User 3 are willing to step up to a maximum price of \$10.02, priority is given to User 2's Enhanced RPI Order as it was entered prior to User 3's Enhanced RPI Order.

**Example 23<sup>72</sup>**

The Step-Up Range instruction of an Enhanced RPI Order shall have priority over the discretionary offset of a Discretionary Order. Consider the following example:

- Protected NBBO in security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's Enhanced RPI Order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters a Non-Displayed Order to buy ABC at \$10.01 for 100. User 2's order has a discretionary offset of \$0.04. User 2's order is ranked at \$10.01 and has discretion to execute up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.03 for 100.

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<sup>72</sup>

See proposed Rule 11.24(g)(2). See also proposed Rule 11.12(a)(2).

- **RESULT:** User 3's Retail Order executes against User 1's Enhanced RPI Order at a price of \$10.03. Both User 1's Enhanced RPI Order and User 2's Non-Displayed Order have a ranked price of \$10.01. Similarly, both User 1's Enhanced RPI Order and User 2's Non-Displayed Order have the ability to execute up to a maximum price of \$10.05. However, User 2's Non-Displayed Order utilizes a discretionary offset of \$0.04 to achieve its maximum price while User 1's Enhanced RPI Order contains a Step-Up Range instruction of \$0.04. While both User 1's Step-Up Range instruction and User 2's discretionary offset would provide a maximum execution price of \$10.05, User 1's Step-Up Range instruction has higher execution priority under proposed Rule 11.12(a)(2)(F) as compared to User 2's discretionary offset, which has lower execution priority pursuant to proposed Rule 11.12(a)(2)(G).

**Example 24<sup>73</sup>**

The Step-Up Range instruction of an Enhanced RPI Order shall have priority over the discretionary offset of a Discretionary Order. Consider the following example:

- Protected NBBO in security ABC is \$10.00 x \$10.05.
  - User 1 enters a displayed order to buy ABC at \$10.01 for 100. User 1's order has a discretionary offset of \$0.04. User 1's order is ranked at \$10.01 and has discretion to execute up to a maximum price of \$10.05.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.00 for 100. User 2's order has a Step-Up Range instruction of \$0.04. User 2's order is ranked at \$10.00 and has the ability to step-up to a maximum price of \$10.04.
  - User 3 enters a Retail Order to sell ABC at \$10.03 for 100.

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<sup>73</sup>

See proposed Rule 11.24(g)(2). See also proposed Rule 11.12(a)(2).

User 3's Retail Order executes against User 2's Enhanced RPI Order at a price of \$10.03.

User 2's Enhanced RPI Order has a lower ranked price (\$10.00) and lower maximum price (\$10.04) as compared to User 1's displayed order (\$10.01 ranked price; discretion to execute up to a maximum price of \$10.05). User 1's displayed order also has time priority over User 2's Enhanced RPI Order as it was received by the Exchange prior to User 2's Enhanced RPI Order. However, User 2's Step-Up Range instruction has higher execution priority under proposed Rule 11.12(a)(2)(F) compared to User 1's discretionary offset, which has lower execution priority under proposed Rule 11.12(a)(2)(G). The Exchange believes that awarding priority to User 2's Enhanced RPI Order based on its Step-Up Range instruction is appropriate because User 2 is utilizing the Enhanced RPI Order with the purpose of attempting to gain queue priority in order to execute against a contra-side Retail Order (discussed *infra*). As demonstrated in the examples above, the Exchange is proposing to grant an Enhanced RPI Order the ability to gain price priority over equal-priced or better-priced resting orders on the BYX Book so long as the Enhanced RPI Order can provide price improvement over such resting orders. The Exchange believes that allowing liquidity providers to post orders outside of the range at which they are willing to execute yet maintain the opportunity to step-up against resting orders on the same side of the BYX Book in exchange for the ability to gain price priority will incentivize these liquidity providers to provide additional liquidity on the Exchange. As a result of additional, aggressively priced liquidity submitted to the Exchange designed specifically to interact with Retail Orders, RMOs will therefore be incentivized to submit additional retail order flow to the Exchange which has the potential to interact with an Enhanced RPI Order and receive price improvement.

### Retail Liquidity Identifier

#### *Current Behavior*

The Exchange currently disseminates an identifier pursuant to Rule 11.24(e) when RPI interest (i.e., an RPI Order or multiple RPI Orders) priced at least \$0.001 better than the Protected NBB or Protected NBO for a particular security priced at or above \$1.00 is available in the System (“Retail Liquidity Identifier” or “Identifier”). When there is RPI interest on the BYX Book that is priced at or below (above) the Protected NBB or Protected NBO, no Retail Liquidity Identifier is currently disseminated by the Exchange.<sup>74</sup> The Identifier is disseminated through consolidated data streams (i.e., pursuant to the Consolidated Tape Association Plan/Consolidated Quotation Plan, or CTA/CQ, for Tape A and Tape B securities, and the Nasdaq UTP Plan for Tape C securities) as well as through proprietary Exchange data feeds.<sup>75</sup> The Identifier reflects the symbol and the side (buy or sell) of the RPI interest, but does not include the price or size of the RPI Interest. In particular, CQ and UTP quoting outputs include a field for codes related to the Retail Liquidity Identifier. The codes indicate RPI interest that is priced better than the Protected NBB or Protected NBO by at least the minimum level of price improvement as required by the Program. The Exchange notes that the Identifier can shift from being disseminated to not disseminated (or vice versa) based on movement in the Protected NBB or Protected NBO

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<sup>74</sup> The Exchange notes that RPI Interest may not execute unless it is priced at least \$0.001 better than the Protected NBB or Protected NBO in securities priced at or above \$1.00 or priced at least \$0.0001 better than the Protected NBB or Protected NBO in securities priced below \$1.00, as proposed *supra*.

<sup>75</sup> The Exchange notes that the Retail Liquidity Identifier for Tape A and Tape B securities are disseminated pursuant to the CTA/CQ Plan. The identifier is also available through the consolidated public market data stream for Tape C securities. The processor for the Nasdaq UTP disseminates the Retail Liquidity Identifier and analogous identifiers from other market centers that operate programs similar to the RPI Program.

without new RPI interest being entered on the Exchange. Further, the Exchange notes that as the Protected NBB and Protected NBO move, there may be instances where RPI interest is available on the Exchange but is ineligible to execute due to being priced below (above) the Protected NBB or Protected NBO.

*Proposed Behavior*

The Exchange proposes to continue to disseminate the Retail Liquidity Identifier in its current form should the Enhanced RPI Order be approved.<sup>76</sup> For Enhanced RPI Orders, the indicator will be based off of the ranked price only and the Step-Up Range instruction will not be used. A separate liquidity identifier that identifies Enhanced RPI Order interest will not be disseminated. The Exchange proposes to make clear in Rule 11.24(e) that both RPI Orders and Enhanced RPI Orders constitute RPI Interest and that the Retail Liquidity Identifier shall be disseminated when RPI Interest (as defined in proposed Rule 11.24(a)(5)) with a ranked price at least \$0.001 better than the Protected NBB or Protected NBO for a particular security is available in the System for securities priced at or above \$1.00. Additionally, the Exchange proposes to include language in proposed Rule 11.24(e) that provides that the Retail Liquidity Identifier will not be disseminated if the Protected NBB or Protected NBO moves such that the RPI Interest is no longer priced higher than the Protected NBB or lower than the Protected NBO.

For securities priced at or above \$1.00, displaying the Retail Liquidity Identifier will provide an indication to RMOs that at least one order guaranteeing *at least* \$0.001 of price

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<sup>76</sup> The Exchange plans on submitting a letter requesting assurance from staff of the Division of Trading and Markets that it will not recommend enforcement action to the Commission pursuant to Rule 602 of Regulation NMS (the “Quote Rule”) with respect to: (1) the Exchange with respect to collecting, processing, and making available to vendors the best bid, best offer, and quotation sizes communicated by members of the Exchange, or (2) liquidity providers entering RPI Interest under the Program.

improvement is available in the System, with the opportunity of a Retail Order potentially receiving additional price improvement should the available RPI Interest be in the form of an Enhanced RPI Order. The purpose of the Identifier is to provide relevant market information to RMOs that there is available RPI Interest available on the Exchange, thereby incentivizing RMOs to send Retail Orders to the Exchange. The Exchange believes that even in instances where the Identifier is not being disseminated due to RPI Interest not having a ranked price at least \$0.001 above (below) the Protected NBB (Protected NBO), RMOs continue to be incentivized to submit Retail Orders to the Exchange. While RMOs may not be aware of potential RPI Interest on the Exchange during periods when the Identifier is not being disseminated, the Exchange does not believe that RMOs are harmed by the Exchange accepting RPI Interest that is not executable at the time of receipt by the Exchange and therefore not disseminating an Identifier. First, not all RMOs rely on the Identifier when submitting Retail Orders to the Exchange. In addition, Retail Orders may continue to be submitted even when the Identifier is not being disseminated and will continue to be eligible to execute against contra-side hidden liquidity that may be priced equal to or above (below) the Protected NBB or Protected NBO. These executions against hidden liquidity would also include executions against Enhanced RPI Orders with a ranked price that is equal to or inferior to the Protected NBB or Protected NBO (and therefore does not trigger dissemination of the Identifier), but where the Enhanced RPI Order's Step-Up Range instruction would permit an execution at the next NBBO midpoint or next full cent better than the Retail Order's limit price, which is priced at least \$0.001 above (below) the Protected NBB (Protected NBO).

As discussed below, the Exchange proposes to expand the Program to include

securities priced below \$1.00. Given that the minimum price variation (“MPV”) of a sub-dollar security is \$0.0001,<sup>77</sup> the Exchange proposes in Rule 11.24(e) that the Identifier for sub-dollar securities will be displayed when there is RPI Interest with a ranked price at least \$0.0001 above (below) the Protected NBB or Protected NBO. Similarly, the Identifier for sub-dollar securities will not be displayed if there is RPI Interest on the BYX Book priced at or below (above) the Protected NBB or Protected NBO. The Exchange will continue to display the Identifier for securities priced at or above \$1.00 when there is RPI Interest with a ranked price at least \$0.001 better than the Protected NBB or Protected NBO. The Exchange will not make any other changes to the display of the Identifier from its current form for sub-dollar securities other than the minimum amount of price improvement required to display the Identifier.

#### Securities Priced Below \$1.00

Rule 11.24(h) currently limits the Program to trades occurring at prices equal to or greater than \$1.00 per share and the Exchange periodically notifies Members<sup>78</sup> regarding securities included in the Program through an information circular.<sup>79</sup> Now, the Exchange proposes to expand the Program to all securities, including those priced below \$1.00. The rationale behind expanding the Program to all securities regardless of execution price stems from the growth of sub-dollar trading (i.e., trading at prices below \$1.00), both on- and off-

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<sup>77</sup> See 17 CFR 242.612 (“Minimum pricing increment”).

<sup>78</sup> See Rule 1.5(n). The term “Member” shall mean any registered broker or dealer that has been admitted to membership in the Exchange. A Member will have the status of a “member” of the Exchange as that term is defined in Section 3(a)(3) of the Act. Membership may be granted to a sole proprietor, partnership, corporation, limited liability company or other organization which is a registered broker or dealer pursuant to Section 15 of the Act, and which has been approved by the Exchange.

<sup>79</sup> Supra note 7.

exchange. As of December 2024, an analysis of SIP<sup>80</sup> data by the Exchange found that sub-dollar average daily volume has increased 564% as compared to first quarter 2019. In this period, sub-dollar on-exchange average daily volume grew from 122 million shares per day to 814 million shares per day. An analysis of SIP and FINRA Trade Reporting Facility (“TRF”),<sup>81</sup> data indicates that exchanges represented approximately 36.5% market share in sub-dollar securities, with a total of 1,286 securities trading below \$1.00. As an exchange group, Cboe had approximately 9.8% of market share of sub-dollar securities in the fourth quarter of 2024.

As trading in sub-dollar securities has grown steadily since 2020, the Exchange believes it is appropriate to expand the Program to include securities priced below \$1.00. The Exchange notes, however, that the MPV for sub-dollar securities differs from the MPV for securities priced at or above \$1.00. As provided for by Regulation NMS Rule 612, for securities priced below \$1.00, the MPV is \$0.0001, whereas for securities priced at or above \$1.00 the MPV is \$0.01.<sup>82</sup> The Exchange proposes that in order for an Enhanced RPI Order to gain queue priority ahead of resting orders on the same side of the BYX Book, the Enhanced RPI Order will be stepped-up to the nearest MPV (\$0.0001) for securities priced below \$1.00. This differs from the treatment of Enhanced RPI Orders for securities priced at or above \$1.00, which are proposed to be stepped up to the nearest half cent NBBO midpoint or full cent ahead of resting orders on the same side of the BYX Book.<sup>83</sup>

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<sup>80</sup> The “SIP” refers to the centralized securities information processors.

<sup>81</sup> Trade Reporting Facilities are facilities through which FINRA members report off-exchange transactions in NMS stocks, as defined in SEC Rule 600(b)(47) of Regulation NMS. See Tick Size Proposal at 80315.

<sup>82</sup> Supra note 77.

<sup>83</sup> Supra note 25. See also Example 13, *supra*.

The Exchange recognizes that there is a distinction between the pricing increment in securities priced at or above \$1.00 and securities priced below \$1.00, which have a finer minimum pricing increment. As discussed, in securities priced at or above \$1.00 the Step-Up Range instruction must be able to step up to the next half cent NBBO midpoint or next full cent in order to permit an Enhanced RPI Order to have the ability to gain price priority over resting same-side orders on the BYX Book and requiring Users to have a Step-Up Range instruction priced in \$0.001 increments seeks to ensure that the purpose of Regulation NMS Rule 612 is not undermined by allowing non-displayed Step-Up Range instructions to gain price priority for a de minimis amount of price improvement. The Exchange further supports the purpose of Regulation NMS Rule 612 not only by requiring Users to submit Enhanced RPI Orders with Step-Up Range instructions priced in increments of \$0.001, but also by requiring that Step-Up Range instructions permit Enhanced RPI Orders to step up to the next NBBO midpoint or next full cent in order to potentially gain queue priority.

In securities priced below \$1.00, however, the MPV is \$0.0001 and as such, the quotations and pricing of orders tend to be in finer increments. By allowing an Enhanced RPI Order's Step-Up Range instruction in securities priced below \$1.00 to be priced in increments of \$0.0001 and requiring the Step-Up Range instruction to permit the Enhanced RPI Order to step up to the next minimum pricing increment in order to gain queue priority (rather than the next half cent NBBO midpoint or next full cent as proposed for securities priced at or above \$1.00), the Exchange is seeking to stay within the bounds of Regulation NMS and encourage Users to submit competitively priced RPI Interest to the Exchange relative to the price of the security. The Exchange believes that Users are not harmed by the

distinction in the minimum pricing increment for securities priced at or above \$1.00 and securities priced below \$1.00 as this distinction serves to ensure that Enhanced RPI Orders provide an adequate amount of price improvement at all price levels in exchange for queue priority.

Currently, all Regulation NMS securities traded on the Exchange priced at or above \$1.00 are eligible for inclusion in the Program. The Exchange will announce to its Members via a Trade Desk Notice that the Exchange will no longer provide periodic updates of securities included in the Program as the Program is being expanded to include all Regulation NMS securities traded on the Exchange, regardless of price.

#### Implementation

The Exchange plans to implement the proposed rule change during the second half of 2025 and will announce the implementation date via Trade Desk Notice.

#### (b) 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.<sup>84</sup>

Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>85</sup> 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

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<sup>84</sup> 15 U.S.C. 78f(b).

<sup>85</sup> 15 U.S.C. 78f(b)(5).

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)<sup>86</sup> requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Commission has repeatedly emphasized that the U.S. capital markets should be structured with the interests of retail investors in mind<sup>87</sup> and has recently proposed a series of rules designed, in part, to attempt to bring order flow back to the exchanges from off-exchange trading venues.<sup>88</sup> The Exchange believes its proposed enhancements to the Program are consistent with the Commission's goal of ensuring that the equities markets continue to serve the needs of the investing public. Specifically, introducing the Enhanced RPI Order would protect investors and the public interest by providing retail investors the ability to obtain price improvement on BYX, a national securities exchange. The Exchange is committed to innovation that improves the quality of the equities markets and believes that the proposed Enhanced RPI Order may increase the attractiveness of the Exchange for the execution of Retail Orders submitted on behalf of the millions of ordinary investors that rely on these markets for their investment needs.

The Exchange believes the proposed Enhanced RPI Order promotes just and equitable principles of trade and is not unfairly discriminatory because the order type will

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<sup>86</sup> Id.

<sup>87</sup> See U.S. Securities and Exchange Commission, Strategic Plan, Fiscal Years 2018-2022, available at [https://www.sec.gov/files/SEC\\_Strategic\\_Plan\\_FY18-FY22\\_FINAL\\_0.pdf](https://www.sec.gov/files/SEC_Strategic_Plan_FY18-FY22_FINAL_0.pdf)

<sup>88</sup> Supra notes 18 – 19. See also, Securities Exchange Act Release No. 96496 (December 14, 2022), 88 FR 5440 (January 27, 2023) (“Regulation Best Execution”); Securities Exchange Act Release No. 96493 (December 14, 2022), 88 FR 3786 (January 20, 2023) (“Disclosure of Order Execution Information”).

be available for all Users, and is not limited to a certain subset of market participants. Even though Enhanced RPI Orders may be entered by any market participant, the Exchange believes that the majority of Enhanced RPI Orders will be entered by or on behalf of institutional investors that are willing to provide additional price improvement as a way to minimize their adverse selection costs.<sup>89</sup> The Exchange believes that such segmentation is consistent with section 6(b)(5) of the Act, as it does not permit *unfair* discrimination. The Commission has previously stated that the markets generally distinguish between retail investors, whose orders are considered desirable by liquidity providers because such retail investors are presumed to be less informed about short-term price movements, and professional traders, whose orders are presumed to be more informed.<sup>90</sup> The Commission has further stated that without opportunities for price improvement, retail investors may encounter wider spreads that are a consequence of liquidity providers interacting with more informed order flow.<sup>91</sup> The Exchange believes that its proposed Enhanced RPI Order is reasonably designed to attract marketable retail order flow to the exchange as it will help to ensure that retail investors benefit from the better price that liquidity providers are willing to provide to retail orders in exchange for minimizing their adverse selection costs.

Additionally, the Exchange believes that the proposed Enhanced RPI Order type is not unfairly discriminatory to institutional investors as it rewards the User that enters the highest (for buy orders) or lowest (for sell orders) priced Enhanced RPI Order, based

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<sup>89</sup> Supra note 26.

<sup>90</sup> See Pilot Approval Order at 71656.

<sup>91</sup> Id.

on a combination of the order's limit price and Step-Up Range instruction, with order book priority. Ultimately, execution priority amongst orders resting on the BYX Book will be determined by the Step-Up Range instruction entered on each Enhanced RPI Order, subject to certain limitations described above. If the Step-Up Range instruction for an Enhanced RPI Order provides a marketable, contra-side Retail Order with greater price improvement than would otherwise be available from other resting orders by stepping up to the next full cent or NBBO midpoint (for securities priced at or above \$1.00)<sup>92</sup> or the next minimum price increment (for securities priced below \$1.00), then the Enhanced RPI Order will be granted order book priority. In the event that multiple Enhanced RPI Orders are resting on the BYX Book, the Enhanced RPI Order with the Step-Up Range instruction that could result in the greatest price improvement will be given order book priority. The Exchange believes rewarding the Step-Up Range instruction that could result in the greatest possible price improvement will encourage Users to submit Enhanced RPI Orders with Step-Up Range instructions that are competitively priced in an attempt to earn queue priority in exchange for providing price improvement to Retail Orders. A higher amount of possible price improvement in exchange for queue priority ultimately benefits both retail investors, who will receive price improvement over the NBBO, and the User entering the Enhanced RPI Order, who is able to execute against a marketable Retail Order to minimize its adverse selection costs and interact with retail order flow that they are currently unable to access on the Exchange given that such order flow is largely executed off-exchange.

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<sup>92</sup> Supra note 25. See also Example 13 *supra*.

As noted in the Exchange's initial RPI filings,<sup>93</sup> most equities exchanges, including BYX, determine priority based on a price/time/display allocation model.<sup>94</sup> This has contributed to deep and liquid markets for equity securities as liquidity providers compete to be the first to establish a particular price. While the price/time/display allocation model generally works well for institutional investors, retail investors are traditionally not able to compete with market makers and other automated liquidity providers to set an aggressive price on orders submitted to the Exchange. Importantly, retail investors, in contrast to institutional investors, tend to have longer investment time horizons, which means they are not in the business of optimizing queue placement under a time-based allocation model. Therefore, in order to facilitate the needs of retail investors, the Exchange believes an alternative approach - such as this Enhanced RPI Order proposal - would benefit the retail investor community.

As discussed earlier, the proposed introduction of the Enhanced RPI Order is designed to provide retail investors with enhanced opportunities to obtain additional price improvement by providing them with potential opportunities to execute versus non-displayed Enhanced RPI Orders that offer price improvement beyond that offered by resting orders on the Exchange. Marketable retail order flow is routinely executed in full on entry at the national best bid or offer or better,<sup>95</sup> but many retail liquidity programs,

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<sup>93</sup> Supra notes 6 – 7.

<sup>94</sup> Nasdaq PSX, however, offers a price setter pro rata model that rewards liquidity providers that set the best price and then rewards other market participants that enter larger sized orders. See Securities Exchange Act Release No. 72250 (May 23, 2014), 79 FR 31147 (May 30, 2014) (SR-Phlx-2014-24).

<sup>95</sup> A review of internal Exchange data found that 65.70% of Retail Orders across the Exchange and its affiliates executed at the NBBO or better in 2024. Similarly, 61.80% of retail orders across the Exchange and its affiliates executed at or better than the NBBO in 2023.

including the Exchange's current Program, are designed to offer at least \$0.001 of price improvement over the Protected NBB or Protected NBO to Retail Orders.<sup>96</sup> By introducing Enhanced RPI Orders, the Exchange is proposing to prioritize Enhanced RPI Orders ahead of other resting orders on the same side of the BYX Book in exchange for the Enhanced RPI Order offering price improvement to Retail Orders by stepping up to the next full cent or (for securities priced at or above \$1.00)<sup>97</sup> or the next minimum price increment (for securities priced below \$1.00). The Exchange believes the ability to post an order at a price outside of the range at which it is willing to execute with the ability to gain priority in exchange for executing at a higher (for buy orders) or lower (for sell orders) price will 1) encourage Users to submit more favorably priced Enhanced RPI Orders, and 2) attract Retail Order flow to the Exchange, both of which will benefit all investors. Increased order flow will create a deeper pool of liquidity on the Exchange, which provides for greater execution opportunities for all Users and provides for overall enhanced price discovery and price improvement opportunities on the Exchange. If successful, the proposed rule change would benefit market participants by increasing the diversity of order flow with which they can interact on a national securities exchange, thereby increasing order interaction and contributing to price formation on a regulated market. While RMOs that submit Retail Orders will benefit from increased price improvement opportunities, retail liquidity providers stand to benefit from the Exchange's proposal because by submitting Enhanced RPI Orders with higher (for buy orders) or lower (for sell orders) limit prices and Step-Up Range instructions, their

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<sup>96</sup> See, e.g., IEX Rule 11.232; Nasdaq BX Rule 4780; NYSE National Rule 7.44-E; NYSE Rule 7.44.

<sup>97</sup> Supra note 25. See also Example 13, *supra*.

Enhanced RPI Orders have the ability to gain price priority to execute against contra-side Retail Orders in exchange for offering better priced liquidity.

The Exchange also believes that retail liquidity providers that also choose to submit RPI Orders rather than Enhanced RPI Orders stand to benefit from the proposal. As noted, the Exchange believes that the increased depth and diversity of liquidity that will result from this change will increase price improvement opportunities for Retail Orders. As price competition increases, additional Retail Order flow will follow as RMOs seek out price improvement opportunities. An increase in Retail Order flow to the Exchange benefits all market participants, including retail liquidity providers who choose to submit RPI Orders rather than Enhanced RPI Orders. The Exchange notes that since a Step-Up Range instruction must enable an Enhanced RPI Order to step up to the next NBBO midpoint or next full cent in order to have the ability to earn queue priority in securities priced at or above \$1.00 (or the next minimum pricing increment in securities priced below \$1.00), there may be instances where the Step-Up Range instruction does not permit the Enhanced RPI Order to step up to the NBBO midpoint or next full cent and thus the Enhanced RPI Order cannot earn queue priority to execute against a contra-side Retail Order. In those instances, retail liquidity providers that submit RPI Orders stand to benefit as their RPI Orders may be priced better than the ranked price of the Enhanced RPI Order and other resting liquidity on the BYX Book and therefore are able to execute against the contra-side Retail Order.

The ability to choose between an Enhanced RPI Order and an RPI Order will permit a retail liquidity provider to decide the amount of price improvement it is willing to provide in order to execute against an incoming Retail Order and decide whether

providing additional price improvement only if necessary to gain queue priority is a trade-off the retail liquidity provider is willing to provide in order to earn the right to execute against a Retail Order ahead of other same-side resting orders on the BYX Book. A retail liquidity provider who submits an Enhanced RPI Order will know that the Step-Up Range instruction is utilized only if necessary to earn queue priority, giving the retail liquidity provider confidence that price improvement is being provided in order to execute against a Retail Order. On the other hand, a retail liquidity provider may decide that an RPI Order is more appropriate if the retail liquidity provider wishes to retain the ability to execute only against a Retail Order, but does not want to commit to stepping up to the next NBBO midpoint or next full cent and is willing to wait for an execution rather than provide price improvement to earn queue priority. The Exchange believes its proposal to provide retail liquidity providers the option to prioritize queue priority in exchange for additional price improvement in order to execute against retail order flow through the use of an Enhanced RPI Order in addition to continuing to offer an RPI Order provides an appropriate balance to retail liquidity providers who desire to execute against retail order flow but do not want to commit to the additional potential price improvement required to utilize the Step-Up Range instruction in order to gain queue priority.

Giving queue priority to certain order types is not a novel concept in the securities markets. In fact, on the Exchange's affiliate, Cboe EDGX Exchange, Inc. ("EDGX"), the displayed portion of Retail Priority Orders are given allocation priority ahead of all other available interest on the EDGX Book ("EDGX Retail Priority").<sup>98</sup> The Commission found that EDGX Retail Priority represented a reasonable effort to enhance the ability of

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<sup>98</sup> See EDGX Rule 11.9(a)(2)(A).

bona fide retail trading interest to compete for executions with orders entered by other market participants that may be better equipped to optimize their place in the intermarket queue.<sup>99</sup> The Exchange believes that granting queue priority to an Enhanced RPI Order as discussed in the Purpose section similarly reflects a reasonable effort by the Exchange to create additional price improvement opportunities for retail investors, as has been the standard identified by the Commission in several approval orders written in regards to RLPs.<sup>100</sup> While the Exchange is not proposing to prioritize Retail Orders as EDGX has done, it is proposing to prioritize Enhanced RPI Orders that provide price improvement and may only interact with contra-side Retail Orders. The Exchange's proposal to prohibit RPI Orders and Enhanced RPI Orders from executing with contra-side Type 2-designated Retail Orders when the RPI Order or Enhanced RPI Order is not priced better than the Protected NBB or Protected NBO similarly reflects an attempt to create additional price improvement opportunities for retail investors by making RPI Orders and Enhanced RPI Orders ineligible from executing when these orders are not providing price improvement to contra-side Type 2-designated Retail Orders. While the Exchange is forgoing an execution at a marketable price in situations where an RPI Order or Enhanced RPI Order is priced equal to the Protected NBB or Protected NBO and there is resting contra-side Type 2 Order interest available, the Exchange believes that limiting RPI Order and Enhanced RPI Order executions to situations where price improvement is offered properly reflects the main purpose of the RPI Order and Enhanced RPI Order –

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<sup>99</sup> See Securities Exchange Act Release No. 87200 (October 2, 2019), 84 FR 53788 (October 8, 2019), SR-CboeEDGX-2019-012 (“EDGX Retail Priority Approval Order”).

<sup>100</sup> Supra note 9. See also Securities Exchange Act Release No. 67347 (July 3, 2012), 77 FR 40673 (July 10, 2012) (SR-NYSE-2011-55; SR-NYSEAmex-2011-84) (“RLP Approval Order”) at 40679.

that is, to create additional price improvement opportunities for retail investors.

The Exchange believes that the prioritization of Enhanced RPI Orders that offer price improvement over other resting orders on the same side of the BYX Book promotes just and equitable principles of trade and is consistent with Section 6(b)(5) of the Act as it encourages Users to submit Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions in exchange for queue priority ahead of all resting orders on the same side of the BYX Book so long as price improvement is provided to a contra-side Retail Order. The Exchange proposes to provide queue priority for Enhanced RPI Orders over all other types of orders and is not limiting queue priority to a certain subset of order types. As previously stated, all Users are eligible to submit Enhanced RPI Orders. And while the Exchange believes that most Enhanced RPI Orders will be submitted by or on behalf of professional traders, retail investors will have the opportunity to receive better-priced executions should their executing broker choose to submit a marketable Retail Order to the Exchange. The Exchange believes the introduction of Enhanced RPI Orders will deepen the Exchange's pool of available liquidity, increase marketable retail order flow to the Exchange and provide additional competition for marketable retail order flow, most of which is currently executed off-exchange in the OTC markets. Promoting competition for retail order flow among execution venues stands to benefit retail investors, who may be eligible to receive greater price improvement on the Exchange by interacting with an Enhanced RPI Order than they would if their order was internalized by a broker-dealer on the OTC market. Additionally, retail liquidity providers will benefit from submitting Enhanced RPI Orders and Step-Up Range instructions with competitive prices. By providing

Enhanced RPI Orders and Step-Up Range instructions with competitive prices, retail liquidity providers are, in essence, improving the quality of order flow available for contra-side Retail Orders and increasing the odds of their Enhanced RPI Orders executing with desirable retail order flow rather than informed order flow or not executing at all.

Furthermore, the Exchange believes that its proposal to limit the use of the Step-Up Range instruction to determine order book priority is consistent with Section 6(b)(5) of the Act because the use of the Step-Up Range instruction rather than limit price to determine order priority is limited to the following: 1) the Step-Up Range instruction is needed to gain priority over a resting order with higher order book priority; 2) in situations where i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the Enhanced RPI Order's ranked price and all other resting liquidity in the same security and ii) the Enhanced RPI Order's Step-Up Range instruction is priced equal to or higher (lower) than the Retail Order's limit price; and 3) to determine order book priority when multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of higher priority orders. The primary use case of the Enhanced RPI Order identified in the first scenario listed above is to provide price improvement to marketable retail order flow. As previously discussed in the Statutory Basis section, the Exchange believes allowing the use of a Step-Up Range instruction in order to provide an additional, higher (for buy orders) or lower (for sell orders) price at which an Enhanced RPI Order may execute is essential in order to deepen the pool of liquidity available to retail investors. In exchange for providing orders with high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions, these liquidity providers will be rewarded with executions against marketable retail order flow, which is generally

preferred over more informed order flow. Liquidity providers that choose to submit Enhanced RPI Orders with competitively priced limit prices and/or Step-Up Range instructions stand to benefit in that their orders are positioned to possibly gain price priority over same-side, resting orders on the BYX Book and execute against preferred retail order flow rather than forego an execution by submitting orders that do not contain high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions. Retail investors, on the other hand, will receive price improvement should their order execute against an Enhanced RPI Order. Increased opportunities for price improvement stand to make the Exchange a more attractive venue for RMOs to submit Retail Orders, thus encouraging RMOs to bring retail order flow back to a regulated, lit market rather than executing off-exchange.

In the situation where i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the Enhanced RPI Order's limit price and all other resting liquidity in the same security and ii) the Enhanced RPI Order's Step-Up Range instruction is priced equal to or higher (lower) than the limit price of the Retail Order, the Exchange believes using the Step-Up Range instruction to determine order priority promotes just and equitable principles of trade because it rewards the Enhanced RPI Order with the highest (lowest) Step-Up Range instruction rather than forego an execution due to the limit price of all orders resting on the BYX Book being ineligible to trade with the contra-side Retail Order. The intent of the Enhanced RPI Order is to reward those Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions with queue priority while simultaneously providing price improvement to Retail Orders. The Exchange believes

that determining order priority using the Step-Up Range instruction in this limited situation is aligned with the intent of liquidity providers that choose to submit Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions and also emphasizes a benefit of using the Enhanced RPI Order – the ability to enter an order at a lower (for buy orders) or higher (for sell orders) price but also provide a Step-Up Range instruction within which the liquidity provider is willing to execute in order to execute against retail order flow rather than forego an execution and remain on the BYX Book. The Exchange seeks to encourage liquidity providers to submit order flow designed to interact with marketable retail order flow in an effort to increase the amount of Retail Order executions occurring on-exchange. By rewarding Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions in situations where the order would otherwise not execute, the Exchange believes its pool of liquidity available to marketable retail order flow will deepen, thus incentivizing RMOs to submit additional marketable retail order flow to the Exchange.

Likewise, using the Step-Up Range instruction rather than the limit price of an Enhanced RPI Order in situations where multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of higher priority orders promotes the use of the Enhanced RPI Order type as the Exchange seeks to encourage RMOs to submit marketable Retail Orders to the Exchange. Determining order priority of Enhanced Orders based on their Step-Up Range instruction over the limit price of all other higher priority orders rewards the Enhanced RPI Order that provides the highest (for buy orders) or lowest (for sell orders) Step-Up Range instruction. The Exchange believes that using

the Step-Up Range instruction rather than the limit price in situations where there are multiple Enhanced RPI Orders will encourage Users to submit Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions to the Exchange, as they will be given priority to interact with more desirable marketable retail order flow based on their Step-Up Range instruction.

Additionally, the Exchange believes that RMOs will be encouraged to direct marketable retail order flow to the Exchange knowing that the *worst* price they will receive is \$0.001 better than the Protected NBB or Protected NBO for securities priced at or above \$1.00<sup>101</sup> and there is potential to receive a greater amount of price improvement should an Enhanced RPI Order be present on the opposite side of the BYX Book.<sup>102</sup>

Even in the limited situation where the ranked price of an Enhanced RPI Order is utilized to determine the queue priority of Enhanced RPI Orders (i.e., where multiple Enhanced RPI Orders are resting on the BYX Book and there is no other same-side resting liquidity on the BYX Book with higher priority and an incoming contra-side Retail Order to sell (buy) is priced lower (higher) than the ranked price of the resting Enhanced RPI Orders' ranked prices), Retail Orders stand to benefit. Users submitting Enhanced RPI Orders to the Exchange do so with the intent of interacting with contra-side Retail Orders and as such, are encouraged to submit Enhanced RPI Orders with competitive limit prices, in addition to their Step-Up Range instructions, in an attempt to gain price priority in order to execute against Retail Orders. The Exchange does not view Enhanced RPI Orders as discouraging Users from submitting RPI Orders or devaluing

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<sup>101</sup> For securities priced below \$1.00, the minimum amount of price improvement as compared to the Protected NBB or Protected NBO is \$0.0001.

<sup>102</sup> Supra note 25. See also Example 13, *supra*.

RPI Orders but rather believes that Enhanced RPI Orders are a way to encourage competition from retail liquidity providers as they seek to minimize adverse selection costs and interact with incoming contra-side Retail Orders. With Users contending for executions against incoming retail liquidity, Users submitting Enhanced RPI Orders and RPI Orders naturally would be expected to utilize competitive prices in order to put themselves in the best position to execute against retail liquidity rather than submit orders with prices that are not positioned to potentially execute.

Additionally, the Exchange believes that its proposal to amend its current Rule 11.12 in order to provide that the Step-Up Range instruction has priority over both the discretionary portion of a Discretionary Order and a Supplemental Peg Order is consistent with Rule 6(b)(5) of the Act because Users choosing to submit Enhanced RPI Orders containing Step-Up Range instructions do so with the intent to earn queue priority over other same-side resting orders on the BYX Book in order to execute against a contra-side Retail Order. In this sense, the Step-Up Range instruction being utilized is dependent on other same-side orders that are resting on the BYX Book and the User does not have control over whether the Step-Up Range instruction is utilized or at what price an execution may occur. While the User does not have control over the utilization of the Step-Up Range instruction, the User does control the maximum (minimum) price at which the Step-Up Range is entered, and chooses this price knowing that the execution will occur against a contra-side Retail Order.

In contrast, the discretionary portion of a Discretionary Order is wholly dependent upon the price of the incoming contra-side order rather than dependent on same-side resting orders on the BYX Book. A Discretionary Order will only utilize the discretionary portion

of its order to execute against an incoming contra-side order if there are no other orders with higher priority resting on the BYX Book. Given that the User submitting an Enhanced RPI Order with a Step-Up Range instruction is utilizing the Step-Up Range instruction in order to have the ability to gain queue priority to execute against an incoming contra-side Retail Order while the User of a Discretionary Order is not submitting its order with the intent to gain priority, the Exchange believes that it is appropriate to rank the Step-Up Range instruction ahead of the discretionary portion of a Discretionary Order in proposed Rule 11.12(a)(2).

An analysis of internal Exchange data found that the current Program provided approximately \$1.6 million in price improvement to retail investors during calendar year 2024,<sup>103</sup> which is a decrease from the \$4.5 million provided to retail investors between the two and a half year period between January 2016 and June 2018.<sup>104</sup> In fact, the average amount of price improvement per month provided to retail investors in 2024 was approximately \$133,333 while between 2016 – 2018 the average amount of price improvement provided to retail investors was \$150,000 per month. It is reasonable to believe that the proposed Enhanced RPI Order, by virtue of providing at least \$0.001 of price improvement and requiring the Step-Up Range instruction to be able to step up to the next half cent NBBO midpoint or next full cent in exchange for execution priority in securities priced at or above \$1.00 (for securities priced below \$1.00 the Enhanced RPI Order must provide at least \$0.0001 of price improvement and requiring the Step-Up Range instruction to step up to the next minimum pricing increment), would add to the

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<sup>103</sup> Source: Cboe internal data.

<sup>104</sup> See RPI Approval Order at 53184.

Exchange's ability to provide price improvement to retail investors. The Exchange does not believe that offering additional price improvement to retail investors through Enhanced RPI Orders would cause harm to the broader market. On the contrary, the Exchange believes that rewarding Enhanced RPI Orders with order book priority in exchange for price improvement would further the Commission's goal of providing additional opportunities for retail investors to interact directly with a large volume of individual investor orders.

The Exchange created the Enhanced RPI Order with the goal of encouraging liquidity providers to submit orders eligible to interact with marketable retail order flow with the competition from these liquidity providers resulting in a reasonable alternative for marketable retail order flow to receive executions at a price better than the Protected NBBO. As the Commission noted in its Order Competition Rule proposal, over 90% of marketable NMS retail stock orders are routed to wholesalers where the orders are not exposed to order-by-order competition.<sup>105</sup> While wholesalers generally achieve price improvement relative to the NBBO, the Commission has indicated that exchanges often have liquidity available at the NBBO midpoint, which would be a more favorable price than a retail order receives when executed by a wholesaler.<sup>106</sup> As discussed, the Exchange has attempted to encourage Retail Orders to execute on-exchange through its current Program, with limited success.<sup>107</sup> Here, the Exchange is proposing price

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<sup>105</sup> Supra note 18 at 178.

<sup>106</sup> Id.

<sup>107</sup> As discussed in the Purpose section, Retail Orders on BYX received an average of \$0.0013 of price improvement from RPI Orders during calendar year 2024 but received an average of \$0.0033 of price improvement from all hidden liquidity (inclusive of RPI Orders) on BYX during calendar year 2024.

improvement of at least \$0.001 in securities priced at or above \$1.00 (\$0.0001 in securities priced below \$1.00) as well as requiring the Step-Up Range instruction to step up to the next NBBO midpoint or next full cent in securities priced at or above \$1.00 (or step up to the next minimum pricing increment in securities priced below \$1.00). The Exchange believes that the proposal's two-pronged approach of requiring the ability to step up to the next NBBO midpoint or next full cent will in addition to a minimum pricing increment of \$0.001 (\$0.0001) will result in an increase in price improvement provided to Retail Orders, which in turn will result in an increase in order flow to the Exchange. Increased order flow benefits all market participants by deepening the Exchange's pool of liquidity, which the Exchange believes would further the Commission's goal of "increasing competition and enhancing the direct exposure of individual investor orders to a broader spectrum of market participants" as set forth in section 11A of the Exchange Act.<sup>108</sup>

In addition to the proposed introduction of the Enhanced RPI Order, the Exchange also believes that expanding the Program to include securities priced below \$1.00 is consistent with Section 6(b)(5) of the Act because it promotes just and equitable principles of trade by allowing liquidity providers to submit orders designed to interact with retail order flow in all securities, rather than only in securities priced at or above \$1.00. As stated above, a significant majority of the increased volume in sub-dollar securities comes from executions occurring off-exchange.<sup>109</sup> By permitting the Exchange to expand its Program to include securities priced below \$1.00, the Exchange would be a

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<sup>108</sup> Supra note 18 at 178.

<sup>109</sup> See "How Subdollar Securities are Trading Now" (March 16, 2023). Available at: <https://www.cboe.com/insights/posts/how-subdollar-securities-are-trading-now/>.

more attractive venue for liquidity providers seeking to interact with retail order flow, which furthers the Commission's goal of bringing retail order executions back on-exchange. Further, the proposal to expand the Program to include securities priced below \$1.00 is not unfairly discriminatory because all Users will be able to submit RPI Orders or Enhanced RPI Orders at prices below \$1.00. As noted above, the Exchange, along with its affiliates, maintained a market share of 9.8% in sub-dollar securities during the fourth quarter of 2024.<sup>110</sup> The Exchange believes that its expansion of the Program to include sub-dollar securities would lead to more liquidity providers submitting order flow to the Exchange in an attempt to execute against Retail Orders. In turn, RMOs would submit additional Retail Order flow to the Exchange to interact with RPI Orders and Enhanced RPI Orders as there would be additional opportunities for price improvement in sub-dollar securities.

The proposal removes impediments to and perfect the mechanism of a free and open market and a national market system and protects investors and the public interest by allowing executions in Retail Orders priced below \$1.00 to receive price improvement by executing against RPI Orders or Enhanced RPI Orders, which are currently only available at prices at or above \$1.00. In addition to the changes described above, the Exchange believes that the changes to certain existing rule text within Rule 11.24 is consistent with Section 6(b)(5) of the Act because it provides additional certainty as to how Rule 11.24 is to be applied. The proposed revised definition of RPI Interest in Rule 11.24(a)(5) is necessary in order to capture the proposed Enhanced RPI Order type, in addition to the existing RPI Order. Additionally, amending Rule 11.24(e) and Rule

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<sup>110</sup> Id.

11.24(f)(1) – (2) to reflect the changes made in Rule 11.24(a)(5) is necessary in order to ensure that RPI Interest is properly defined throughout Rule 11.24. The deletion of Rule 11.24(h) is consistent with the Exchange’s proposal to expand the Program to securities priced below \$1.00 and the deletion of Rule 11.24(i) is appropriate as it is inapplicable to Retail Orders on the Exchange and was inadvertently added to the rule text. The proposed changes to Rule 11.24(a)(2) are intended to insert a reference to Rule 11.9(b)(1) describing Immediate or Cancel Orders and introduce the ability for Users to submit Retail Orders as Mid-Point Peg Orders, both of which changes serve to provide additional guidance to Users of Retail Orders about the order modifiers permitted by the Exchange. The Exchange believes these changes are intended to facilitate usage of RPI Interest and serve to ensure that Rule 11.24 is properly describing order behavior after the proposed introduction of the Enhanced RPI Order and proposed expansion of the Program to securities priced below \$1.00.

**Item 4. Self-Regulatory Organization’s Statement on Burden on Competition**

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange believes that the proposal does not impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act. Rather, the proposed rule change is designed to increase intramarket competition for retail order flow by introducing a new order type that is designed to provide price improvement to Retail Orders in exchange for the ability to gain price priority over resting orders on the same side of the BYX Book. The proposal, which seeks to provide an innovative form of price improvement to Retail Orders through the

creation of the Enhanced RPI Order, represents an effort by the Exchange to encourage on-exchange liquidity and incentivize the trading of Retail Orders on a national securities exchange.

The Exchange also believes the proposed rule change does not impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the Act. As discussed above, IEX, NYSE, NYSE National, and Nasdaq BX each operate RLPs and the Exchange believes that its proposed rule change will allow it to compete for additional retail order flow with the aforementioned exchanges.<sup>111</sup> Furthermore, the Exchange's proposal will promote competition between the Exchange and off-exchange trading venues where the majority of retail order flow trades today. The proposed Enhanced RPI Order is designed to foster innovation within the market and increase the quality of the national market system by allowing national securities exchanges to compete both with each other and with off-exchange venues for order flow. Expanding the program to include securities priced below \$1.00 similarly would not impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the Act. The Exchange's proposal is designed to increase competition for trading in all securities, including but not limited to securities priced below \$1.00. Given the growth of trading in sub-dollar securities since 2020, the Exchange believes that expanding the Program to include sub-dollar securities will make the Program an attractive option for retail investors seeking to trade in lower-priced securities, and as such is a competitive measure designed to compete directly with other exchanges for order flow.

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

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<sup>111</sup> Supra note 96.

**Others**

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

**Item 6.        Extension of Time Period for Commission Action**

The Exchange does not consent to an extension of the time period for Securities and Exchange Commission (the “Commission”) action on the proposed rule change specified in Section 19(b)(2) of the Act.<sup>112</sup>

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

Not applicable.

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

The proposed rule change is not based on a rule either of another self-regulatory organization or of the Commission.

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

Not applicable.

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

Not applicable.

**Item 11.       Exhibits**

Exhibit 1.       Completed Notice of Proposed Rule Change for publication in the Federal Register.

Exhibit 2 - 4.   Not applicable.

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<sup>112</sup> 15 U.S.C. 78s(b)(2).

Exhibit 5. Proposed rule text.

EXHIBIT 1**SECURITIES AND EXCHANGE COMMISSION**

[Release No. 34- ; File No. SR-CboeBYX-2025-007]

[Insert date]

Self-Regulatory Organizations; Cboe BYX Exchange, Inc.; Notice of Filing of a Proposed Rule Change to Modify Rule 11.24 to Introduce an Enhanced RPI Order and Expand its Retail Price Improvement Program to Include Securities Priced Below \$1.00

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on [insert date], Cboe BYX Exchange, Inc. (the “Exchange” or “BYX”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

Cboe BYX Exchange, Inc. (the “Exchange” or “BYX”) is filing with the Securities and Exchange Commission (“Commission”) a proposal to modify Rule 11.24 to introduce an Enhanced RPI Order and expand its Retail Price Improvement program to include securities priced below \$1.00. The text of the proposed rule change is provided in Exhibit 5.

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

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

The text of the proposed rule change is also available on the Exchange's website ([http://markets.cboe.com/us/equities/regulation/rule\\_filings/byx/](http://markets.cboe.com/us/equities/regulation/rule_filings/byx/)), at the Exchange's Office of the Secretary, 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 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**

This Amendment No. 3 to SR-CboeBYX-2025-007 amends and replaces in entirety Amendment No. 2 to SR-CboeBYX-2025-007, which was filed on June 16, 2025, and withdrawn on June 17, 2025. The Exchange originally filed Amendment No. 1 to SR-CboeBYX-2025-007 on May 6, 2025, and withdrew Amendment No. 1 on June 17, 2025. The Exchange submits this Amendment No. 3 in order to clarify certain points, add additional detail to the proposal, and introduce an amendment to Rule 11.12 (Priority of Orders).

The Exchange proposes to amend Rule 11.24 to enhance the Exchange's Retail Price Improvement Program (the "Program") for the benefit of retail investors. Specifically, the Exchange proposes to introduce a new type of RPI Interest<sup>3</sup> to be known as an

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<sup>3</sup> See proposed Rule 11.24(e). RPI Interest means an order submitted to the Exchange that is designated as either an RPI Order or an Enhanced RPI Order. See also Rule 11.24(a)(3) ("Retail

“Enhanced RPI Order.” The proposed Enhanced RPI Order will allow retail liquidity providers to post orders at their limit price but have the opportunity to provide a greater amount of price improvement as compared to other resting orders on the same side of the BYX Book with higher price-time priority in order to execute with an incoming Retail Order<sup>4</sup> by executing at a price within their established Step-Up Range instruction.<sup>5</sup> The proposed change is designed to provide retail investors with opportunities for additional price improvement by introducing a new order type that will “step-up” its price against orders with a higher priority resting on the BYX Book.<sup>6</sup> Additionally, the Exchange proposes to expand the Program to securities priced below \$1.00.<sup>7</sup> Further, the Exchange proposes to amend Rule 11.12 in order to introduce a new priority band applicable to the proposed Step-Up Range instruction of an Enhanced RPI Order.

### Background

In November 2012, the Exchange received approval to operate its Program on a pilot basis.<sup>8</sup> The Program operated under a pilot basis until September 30, 2019, when the Program was approved on a permanent basis.<sup>9</sup> In addition, the Exchange was granted a limited exemption from the Sub-Penny Rule, as well as Regulation NMS Rule 602 (Quote

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Price Improvement Order”).

<sup>4</sup> See Rule 11.24(a)(2) (“Retail Order”).

<sup>5</sup> See proposed Rule 11.24(a)(4).

<sup>6</sup> See Rule 1.5(e) (“BYX Book”). The “BYX Book” is the System’s electronic file of orders. The “System” shall mean the electronic communications and trading facility designated by the Board through which securities orders of Users are consolidated for ranking, execution, and when applicable, routing away. See Rule 1.5(aa) (“System”).

<sup>7</sup> See Rule 11.24(h). The Program is currently limited to trades occurring at prices equal to or greater than \$1.00 per share.

<sup>8</sup> See Securities Exchange Act Release No. 68303 (November 27, 2012), 77 FR 71652 (December 3, 2012), SR-BYX-2012-019 (“Pilot Approval Order”).

<sup>9</sup> See Securities Exchange Act Release No. 87154 (September 30, 2019), 84 FR 53183 (October 4, 2019), SR-CboeBYX-2019-014 (“RPI Approval Order”).

Rule) No Action relief<sup>10</sup> to operate the Program.<sup>11</sup> The Program is currently designed to attract Retail Orders to the Exchange and allow such order flow to receive potential price improvement. The Program is currently limited to trades occurring at prices equal to or greater than \$1.00 per share.<sup>12</sup> Under the Program, a class of market participant called a Retail Member Organization (“RMO”)<sup>13</sup> is eligible to submit certain retail order flow (“Retail Orders”) to the Exchange. Users<sup>14</sup> are permitted to provide potential price improvement for Retail Orders<sup>15</sup> in the form of non-displayed interest that is better than the national best bid that is a Protected Quotation (“Protected NBB”) or the national best offer that is a Protected Quotation (“Protected NBO”, and together with the Protected NBB, the “Protected NBBO”).<sup>16</sup>

The Exchange developed this Program with the goal of incentivizing RMOs to

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<sup>10</sup> See Letter from David Shillman to Eric Swanson (November 27, 2012) (“No Action Letter”), available at <https://www.sec.gov/divisions/marketreg/mr-noaction/byx-112712-602.pdf>.

<sup>11</sup> Supra note 9 at 53185.

<sup>12</sup> Supra note 7. The Exchange will periodically notify the membership regarding the securities included in the Program through an information circular. The Exchange is proposing to make the Program available to all securities (discussed *infra*).

<sup>13</sup> See Rule 11.24(a)(1). A “Retail Member Organization” or “RMO” is a Member (or a division thereof) that has been approved by the Exchange under Rule 11.24 to submit Retail Orders.

<sup>14</sup> See Rule 1.5(cc). A “User” is defined as any member or sponsored participant of the Exchange who is authorized to obtain access to the System.

<sup>15</sup> Supra note 4. A “Retail Order” is defined as an agency or riskless principal order that originates from a natural person and is submitted to the Exchange by an RMO, provided that no change is made to the terms of the order with respect to price or side of market and the order does not originate from a trading algorithm or any computerized methodology.

<sup>16</sup> See Rule 1.5(t). The term “Protected Quotation” has the same meaning as is set forth in Regulation NMS Rule 600(b)(71). The terms Protected NBB and Protected NBO are defined in BYX Rule 1.5(s). The Protected NBB is the best-priced protected bid and the Protected NBO is the best-priced protected offer. Generally, the Protected NBB and Protected NBO and the national best bid (“NBB”) and national best offer (“NBO”, together with the NBB, the “NBBO”) will be the same. However, a market center is not required to route to the NBB or NBO if that market center is subject to an exception under Regulation NMS Rule 611(b)(1) or if such NBB or NBO is otherwise not available for an automatic execution. In such case, the Protected NBB or Protected NBO would be the best-priced protected bid or offer to which a market center must route interest pursuant to Regulation NMS Rule 611.

execute their Retail Orders on the Exchange, rather than off-exchange venues, by providing Retail Orders with greater access to potential opportunities for price improvement on the Exchange. However, as noted by the Commission, even with the presence of retail liquidity programs (“RLPs”) offered by Cboe and other national securities exchanges,<sup>17</sup> the great majority of marketable orders of retail investors continue to be sent to wholesalers.<sup>18</sup> Indeed, as noted in the Commission’s recent rule proposal related to minimum pricing increments, RLPs have not yet attracted a significant volume of retail order flow.<sup>19</sup> In fact, since RLPs have been adopted, the percentage of on-exchange share volume has continued to decrease from approximately 71% to approximately 49% as of December 2024.<sup>20</sup>

Accordingly, the Exchange believes further enhancements to the Program are necessary in order to attract a meaningful volume of marketable retail order flow to the Exchange. In considering how to accomplish the goals of the Program, the Exchange determined to design an enhancement to provide more meaningful levels of price improvement provided to Retail Orders relative to the price improvement currently provided by both the Program as well as off-exchange venues.

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<sup>17</sup> See, e.g., NYSE Retail Liquidity program, which promotes cost savings through price improvement for individual investors provided by retail liquidity providers that submit non-displayed interest priced better than the best protected best bid or protected best offer. See also NYSE National Retail Liquidity program, which seeks to attract retail order flow to the Exchange through the potential of price improvement at the midpoint or better. Available at <https://www.nyse.com/markets/liquidity-programs>. See also IEX Retail Program, which incentivizes midpoint liquidity for retail orders through the use of retail liquidity provider orders. Available at <https://www.iexexchange.io/products/retail-program>. See also Nasdaq BX Retail Price Improvement, which allows retail orders to interact with price-improving liquidity. Available at <https://www.nasdaqtrader.com/content/BXRPIfs.pdf>.

<sup>18</sup> See Securities Exchange Act Release No. 96495 (December 14, 2022), 88 FR 128 (January 3, 2023) (“Order Competition Rule”) at 144.

<sup>19</sup> See Securities Exchange Act Release No. 96494 (December 14, 2022), 87 FR 80266 (December 29, 2022) (“Tick Size Proposal”) at 80273.

<sup>20</sup> Source: Cboe internal data.

As noted by the Commission, there are reasonable concerns with the price improvement provided to retail orders executed off-exchange by wholesale broker-dealers. In short, the Commission itself has stated that “the current isolation of individual investor orders from order-by-order competition results in suboptimal price improvement for such orders.”<sup>21</sup> The Commission believes that the lack of order competition for retail orders leads to “foregone price improvement” or “competitive shortfall,”<sup>22</sup> which for the first quarter of 2022, the Commission quantified to be as much as \$1.5 billion.<sup>23</sup>

In determining how to better design its Program in order to attract retail order flow back to the Exchange, the Exchange conducted research into the amount of price improvement provided to Retail Orders on BYX. The Exchange found that RPI Orders under its current Program provided an average of \$0.0013 per share of price improvement to Retail Orders in 2024, as compared to the BYX Book. A more thorough review of BYX data found that the amount of price improvement provided to Retail Orders solely by RPI Orders under the current Program on BYX is lower than the amount of price improvement provided to Retail Orders by all hidden liquidity on BYX (including RPI Orders). An analysis of BYX data found that Retail Orders received an average of \$0.0033 per share of price improvement and a total amount of approximately \$1.68 million in 2024 when executing against all hidden liquidity on BYX (including RPI Orders), as compared to the BYX Book.<sup>24</sup> The Exchange’s analysis of price improvement statistics found that its current RPI Orders provide, on average, less price improvement to Retail Orders than other hidden

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<sup>21</sup> Supra note 18 at 130.

<sup>22</sup> Id.

<sup>23</sup> Id.

<sup>24</sup> Supra note 20.

liquidity on BYX. As such, the Exchange believes that revising its Program to include an optional order instruction (discussed *infra*) designed to potentially provide a higher amount price improvement to Retail Orders as compared to the price improvement both currently received under the existing Program as well as through hidden, non-displayed liquidity available on the Exchange against which Retail Orders currently trade with today, will encourage retail order flow to execute on a regulated market as opposed to off-exchange venues.

Accordingly, the Exchange now seeks to enhance its current Program by offering retail liquidity providers an optional Enhanced RPI Order. The Exchange believes the Enhanced RPI Order will incentivize additional retail liquidity provision by enabling RPI liquidity providers to submit an order that is ranked at a lower (for buy orders) or higher (for sell orders) price than the maximum price at which the provider is willing to execute, but have the opportunity to “step up” to provide a greater amount of price improvement as compared to other higher priority resting orders on the same side of the BYX Book in order to execute with an incoming contra-side Retail Order. As discussed in more detail below, the Enhanced RPI Order will have the ability to gain price priority over same-side resting orders on the BYX Book in exchange for offering price improvement when a contra-side Retail Order is submitted to the Exchange and certain conditions are met. With the deeper pool of retail liquidity-providing orders, the Exchange believes that RMOs will see increased opportunities for on-exchange price improvement and seek to execute more of their Retail Orders on the Exchange.

#### Proposal

The Exchange proposes to amend Rule 11.24(a) to include Rule 11.24(a)(4), which

defines the proposed Enhanced RPI Order. The proposed Enhanced RPI Order allows a retail liquidity provider to post a limit order to the Exchange, but also provides the opportunity for the liquidity provider to “step-up” its price within a defined Step-Up Range instruction and have the ability to gain price priority by providing a greater amount of price improvement as compared to orders with higher priority that are resting on the same side of the BYX Book in order to execute against an incoming Retail Order seeking to remove liquidity. An Enhanced RPI Order is designed to be entered with a limit price, but must also include a Step-Up Range instruction, which, when applied to the order’s ranked price provides the highest (for buy orders) or lowest (for sell orders) price it is willing to execute against a contra-side Retail Order. If the Enhanced RPI Order includes a Step-Up Range instruction that would allow the Enhanced RPI Order to provide additional price improvement over the price of the highest-ranked resting order on the same side of the BYX Book, the Enhanced RPI Order will be given price priority over the highest-ranked resting order, subject to certain conditions discussed *infra*. In order for an Enhanced RPI Order to receive queue priority, the Step-Up Range instruction must allow the Enhanced RPI Order to provide a greater amount of price improvement to an incoming contra-side Retail Order than would otherwise be available from same-side, resting orders on the BYX Book by stepping up to the next half cent midpoint or next full cent for securities priced at or above \$1.00 and to the next minimum price increment for securities priced below \$1.00.<sup>25</sup>

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<sup>25</sup> Generally, an Enhanced RPI Order is expected to provide at least \$0.005 of price improvement in order to gain price priority over same-side resting orders on the BYX Book, but the Exchange notes that the minimum amount of required price improvement will vary between \$0.001 and \$0.01, based on the order types resting on the BYX Book. In certain instances, Enhanced RPI Orders in securities priced at or above \$1.00 may only need to step up to the NBBO midpoint or from the NBBO midpoint to the next full cent in order to gain price priority over same-side resting orders on the BYX Book (discussed *infra*).

The Exchange believes this proposed change would further the purpose of the Program to attract retail marketable order flow to the Exchange, while also increasing opportunities for price improvement. By offering the Enhanced RPI Order, the Exchange proposes to create an enhancement to its current Program that offers the ability for liquidity providers to earn queue priority to execute against marketable retail order flow on the Exchange. The Enhanced RPI Order would allow Users to post orders at their limit price but step up or down to a higher price (for buy orders) or lower price (for sell orders) in order to execute against marketable retail order flow that is less prone to adverse selection.<sup>26</sup> The Exchange believes that the proposed change will lead to increased participation in the Program by Users seeking to provide liquidity for marketable retail order flow. As a result of increased participation in the Program, the Exchange believes that it will attract additional marketable retail order flow in search of price improvement opportunities.

The Exchange believes that the introduction of the Enhanced RPI Order will complement the existing RPI Order type as it is intended to provide Users with additional, optional functionality that may be utilized when seeking to interact with Retail Orders. The Exchange views the Enhanced RPI Order as a complement to the existing RPI Order because the distinction between the Enhanced RPI Order and the existing RPI Order is simply the addition of the Step-Up Range instruction, which will permit Users to enter an Enhanced RPI Order at a defined limit price but simultaneously permit these Users to have the ability to gain price priority over resting same-side orders on the BYX Book in exchange

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<sup>26</sup> Adverse selection is the phenomenon where the price of a stock drops right after a liquidity provider purchases the stock. Marketable retail order flow is generally seen as more desirable by institutional liquidity providers as executions against retail orders are less prone to adverse selection. The Commission has previously opined that retail liquidity programs may be beneficial to institutional investors as they may be able to reduce their possible adverse selection costs by interacting with retail order flow. See Pilot Approval Order at 71656.

for providing price improvement. Users will be free to decide whether resting on the BYX Book in order to obtain an execution against a Retail Order at a specific limit price utilizing an RPI Order is more valuable than submitting an Enhanced RPI Order for a chance to earn price priority in exchange for price improvement.

The Exchange also believes that while certain retail liquidity providers will be incentivized to use the proposed Enhanced RPI Order due to its ability to gain price priority, certain retail liquidity providers will simply want the ability to interact with retail order flow and are not concerned with gaining price priority. If the Enhanced RPI Order is successful in attracting additional retail order flow, Users submitting RPI Orders may also benefit as there is additional liquidity against which their RPI Orders may interact if those Retail Orders are not filled by an Enhanced RPI Order. For these reasons, the Enhanced RPI Order and RPI Order should be viewed as complementary order types and should not be seen as competing with one another. While Enhanced RPI Orders may be entered by any User, the Exchange believes that the majority of Enhanced RPI Orders will be entered by or on behalf of institutional investors that are willing to provide additional price improvement as a way to minimize their adverse selection costs. The Exchange does not believe that Users will be less likely to submit RPI Orders simply because an Enhanced RPI Order type is also available, similar to how Users are not dissuaded from submitting traditional limit orders when a Discretionary Order<sup>27</sup> also exists on the Exchange.

In conjunction with introducing Rule 11.24(a)(4), the Exchange proposes to introduce Rule 11.24(a)(5) in order to define the term RPI Interest as either RPI Orders or Enhanced RPI Orders. The Exchange also proposes to amend Rule 11.24(e) in order to more

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<sup>27</sup> See Rule 11.9(c)(10).

accurately describe when the Retail Liquidity Identifier is displayed. Additionally, the Exchange proposes to amend Rule 11.24(g) by removing the example currently found in the rule text that describe RPI Order priority. The Exchange notes that Rule 11.24(g) will be inclusive of both RPI Order priority and Enhanced RPI Order priority and as such the example currently contained within Rule 11.24(g) is no longer necessary as it is explained more thoroughly in the proposed rule text. The Exchange also proposes to make corresponding changes within Rule 11.24 to replace certain references to RPI Order with the term RPI Interest in order to have language inclusive of both RPI Orders and Enhanced RPI Orders. Further, the Exchange proposes to delete Rule 11.24(h), as the Exchange proposes to expand the Program to securities priced below \$1.00. The Exchange will announce that the RPI Program has expanded to all securities in a Trade Desk notice, and periodic updates will no longer be required. The Exchange also proposes to delete Rule 11.24(i) as it is inapplicable to Retail Orders on the Exchange and was inadvertently added to the rule text. Finally, the Exchange proposes to clarify throughout Rule 11.24 that RPI Orders and Enhanced RPI Orders will be ineligible to execute at prices equal to or inferior to the Protected NBB or Protected NBO.

Additionally, with the introduction of the Enhanced RPI Order, the Exchange proposes to amend Rule 11.24(a)(2) to permit a Retail Order to be entered as a Mid-Point Peg Order.<sup>28</sup> The Exchange also proposes to amend Rule 11.24(a)(2) to better describe that the time-in-force requirement for all Retail Orders, including those entered as a Mid-Point

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<sup>28</sup> See Rule 11.9(c)(9). A Mid-Point Peg Order is a limit order that, after entry into the System, the price of the order is automatically adjusted by the System in response to changes in the NBBO to be pegged to the mid-point of the NBBO, or, alternatively, pegged to the less aggressive of the midpoint of the NBBO or one minimum price variation inside the same side of the NBBO as the order.

Peg Order, is required to be Immediate or Cancel (“IOC”). The Exchange believes that allowing the Mid-Point Peg Order instruction on a Retail Order will benefit Users who choose to submit Retail Orders because it will permit a Retail Order to guarantee price improvement at the midpoint or better. The Mid-Point Peg Order instruction will be optional, and not required for Users of Retail Orders.

### RPI Orders

#### *Current RPI Order Definition, Priority, and Order Allocation*

Rule 11.24(a)(3) currently defines an RPI Order as “non-displayed interest on the Exchange that is priced better than the Protected NBB or Protected NBO by at least \$0.001 and that is identified as such.”<sup>29</sup> Rule 11.24(a)(3) also provides that the System will monitor whether RPI buy or sell interest, adjusted by any offset and subject to the ceiling or floor price, is eligible to interact with incoming Retail Orders. RPI Orders are non-displayed (including the buy or sell interest, the offset, and the ceiling or floor price).<sup>30</sup> Users are not required to submit RPI Orders.<sup>31</sup> An RPI Order may be entered as an odd lot, round lot, or mixed lot.<sup>32</sup>

As stated in current Rule 11.24(g), RPI Orders are ranked in accordance with Rule 11.12(a). Furthermore, under current Rule 11.24(g), competing RPI Orders in the same security are ranked and allocated according to price then time of entry into the System. Executions occur in price/time priority in accordance with Rule 11.12. Any remaining unexecuted RPI interest remains available to interact with other incoming Retail Orders if

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<sup>29</sup> Supra note 3.

<sup>30</sup> Id.

<sup>31</sup> Id.

<sup>32</sup> Id.

such interest is at an eligible price. Any remaining unexecuted portion of the Retail Order will cancel or execute in accordance with Rule 11.24(f). The following example illustrates this method:

- Protected NBBO for security ABC is \$10.00 – \$10.05
- User 1 enters an RPI Order to buy ABC at \$10.015 for 500 shares
- User 2 then enters an RPI Order to buy ABC at \$10.02 for 500 shares
- User 3 then enters an RPI Order to buy ABC at \$10.035 for 500 shares

An incoming Retail Order to sell ABC for 1,000 shares executes first against User 3's bid for 500 shares at \$10.035, because it is the best priced bid, then against User 2's bid for 500 shares at \$10.02, because it is the next best priced bid. User 1 is not filled because the entire size of the Retail Order to sell 1,000 shares is depleted. The Retail Order executes against RPI Orders in price/time priority.<sup>33</sup>

*Proposed RPI Order Definition*

The Exchange now proposes to amend the definition of RPI Order to more accurately reflect when an RPI Order is eligible to execute against a contra-side Retail Order and at what pricing increments RPI Orders may be entered. The Exchange also proposes to add to its rule text that an RPI Order may be entered as a Primary Peg Order as defined in Rule 11.9(c)(8)(A) and specify at what pricing increments the applicable positive or negative offset must be entered. Additionally, the Exchange proposes to remove references to the "ceiling or floor" price and replace that term with "limit price" as it more accurately

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<sup>33</sup> See Rule 11.24(f) for additional examples of Retail Order designation and interaction with RPI Interest under the current Program. While the example included in current Rule 11.24(g) remains accurate, the Exchange proposes to delete this example from the rule text (discussed *infra*) as its proposed rule text will encompass the above-described behavior.

describes the price at which an RPI Order entered as a Primary Pegged Order will be eligible to interact with a contra-side Retail Order.

The Exchange proposes to revise the definition of RPI Order under Rule 11.24(a)(3) to state that an RPI Order consists of non-displayed interest that is identified as such. An RPI Order for a security priced at or above \$1.00 must be priced at least \$0.001 better than the Protected NBB or Protected NBO and may be entered in increments of \$0.001. For securities priced below \$1.00, an RPI Order must be priced at least \$0.0001 better than the Protected NBB or Protected NBO and may be priced in \$0.0001 increments. The Exchange will also include language that an RPI Order may be entered at a limit price that is equal to or inferior than the Protected NBB or Protected NBO, but may execute only at prices better than the Protected NBB or Protected NBO. Additionally, the Exchange notes that an RPI Order that is ineligible to execute due to not being priced at least \$0.001 (for securities priced at or above \$1.00) or \$0.0001 (for securities priced below \$1.00) better than the Protected NBB or Protected NBO will not be canceled, but will remain on the BYX Book in case the Protected NBBO moves such that the RPI Order becomes eligible to execute at a later time.

Further, the Exchange is proposing to amend Rule 11.24(a)(3) to clarify that an RPI Order may be entered as a Primary Pegged Order (“RPI Primary Pegged Order”), as defined in Rule 11.9(c)(8)(A) and that the ranked price of an RPI Primary Pegged Order will be the price of the order after the order is pegged to the Protected NBB or Protected NBO and the applicable positive (for buy orders) or negative (for sell orders) offset (“Offset Amount”) is applied.<sup>34</sup> For RPI Primary Pegged Orders priced at or above \$1.00, the Offset Amount may

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<sup>34</sup> See Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). A Pegged Order is a limit order that after entry into the System, the price of the order is automatically adjusted by the System in response to changes

be entered in increments of \$0.001 and for RPI Primary Pegged Orders priced below \$1.00, the Offset Amount may be entered in increments of \$0.0001.

#### Proposed Enhanced RPI Order

The Exchange now proposes to introduce an Enhanced RPI Order that Users seeking to provide RPI liquidity may utilize on an optional basis. The proposed Enhanced RPI Order will be eligible to obtain price priority over resting orders in the same security on the same side of the BYX Book in order to execute against a Retail Order by including a Step-Up Range instruction when entered. Enhanced RPI Orders will be ranked in accordance with proposed Rule 11.24(g) (discussed *infra*). In order to effect the proposed change, the Exchange proposes to introduce Rule 11.24(a)(4), which would define an Enhanced RPI Order as:

- An “Enhanced Retail Price Improvement Order” or “Enhanced RPI Order” is an RPI Order that is designated with a Step-Up Range instruction. A Step-Up Range instruction is an optional, non-displayed instruction that is added to (for buy orders) or subtracted from (for sell orders) the ranked price of an RPI Order and provides a maximum execution price (for buy orders) or minimum execution price (for sell orders) at which a User is willing to execute against contra-side Retail Orders. The Step-Up Range instruction may be priced in increments of \$0.001 for securities priced at or above \$1.00 and securities priced below \$1.00.
- An Enhanced RPI Order may be entered as a limit order, in a sub-penny

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in the NBBO. A User entering a Pegged Order can specify that such order’s price will offset the inside quote on the same side of the market by an amount (the “Primary Offset Amount”) set by the User (a “Primary Pegged Order”).

increment with an explicit limit price, or as a Primary Pegged Order (as defined in Rule 11.9(c)(8)(A)) with an Offset Amount. An Enhanced RPI Order is ranked at its limit price and not the price inclusive of its Step-Up Range instruction.

- An Enhanced RPI Order that is also a Primary Pegged Order (“Enhanced RPI Primary Pegged Order”) must be entered with an Offset Amount and will have its ranked price determined after the application of the Offset Amount, as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). The Step-Up Range instruction of an Enhanced RPI Primary Pegged Order will be applied to the resulting ranked price following the application of the Offset Amount and may cause the Enhanced RPI Primary Pegged Order to execute at a price that is higher (for buy orders) or lower (for sell orders) than its limit price. An Enhanced RPI Primary Pegged Order priced at or above \$1.00 may have its Offset Amount entered in pricing increments of \$0.001. An Enhanced RPI Primary Pegged Order priced below \$1.00 may have its Offset Amount entered in pricing increments of \$0.0001.
- The System will monitor whether an Enhanced RPI Order, adjusted by any applicable Offset Amount, the order’s Step-Up Range instruction, and the order’s limit price, is eligible to interact with incoming Retail Orders. An Enhanced RPI Order (including any applicable Offset Amount, the Step-Up Range instruction, and the limit price) remains non-displayed in its entirety. Any User is permitted, but not required, to submit an Enhanced RPI Order. An Enhanced RPI Order may be an odd lot, round lot or mixed lot. An

Enhanced RPI Order shall have priority as described in Rule 11.24(g). An Enhanced RPI Order is ineligible to execute at prices equal to or inferior to the Protected NBB (for buy orders) or Protected NBO (for sell orders), however an Enhanced RPI Order may be entered with a limit price that is equal to or inferior to the Protected NBB or Protected NBO. An Enhanced RPI Order that is ineligible to execute because it is priced equal to or inferior to the Protected NBB (for buy orders) or Protected NBO (for sell orders) will not be cancelled and will become eligible to execute against Retail Orders should the Enhanced RPI Order becomes executable at a later time.

The ranked price of an Enhanced RPI Order will be determined by a User's entry of the following into the Exchange: (1) Enhanced RPI buy or sell interest; (2) any applicable offset; (3) the Step-Up Range instruction; and (4) the limit price. The Step-Up Range instruction of an Enhanced RPI Order is the maximum amount above the order's limit price (for buy orders) or minimum amount below the order's limit price (for sell orders) at which a User is willing to execute. As discussed *infra*, if the Enhanced RPI Order can improve upon resting liquidity on the same side of the BYX Book by stepping up to the nearest full cent (for securities priced at or above \$1.00) or the next minimum pricing increment (for securities priced below \$1.00),<sup>35</sup> it will receive price priority over the resting liquidity on the BYX Book. An Enhanced RPI Order, however, will not improve upon the price of another resting Enhanced RPI Order to receive price priority.<sup>36</sup>

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<sup>35</sup> Supra note 25. There are certain instances in which an Enhanced RPI Order may only need to provide between \$0.001 - \$0.005 in price improvement in securities priced at or above \$1.00 in order to gain price priority over resting liquidity on the BYX Book.

<sup>36</sup> The Exchange plans to submit a request for an exemption under Regulation NMS Rule 612 that would permit it to accept and rank non-displayed RPI Interest. As will be outlined in the request, the Exchange has received an exemption from Rule 612 for the current Program, but believes it is

Pursuant to proposed Rule 11.24(g)(2), Enhanced RPI Orders in securities priced at or above \$1.00 may include a Step-Up Range instruction priced in \$0.001 increments, but these orders shall not gain priority over other same-side resting orders on the BYX Book if the Step-Up Range instruction is unable to step up to the NBBO midpoint or the next full cent. Step-Up Range instructions priced in increments finer than \$0.01 will be capped at the maximum executable price based on a valid tick increment or midpoint and will not otherwise be executable at the maximum price of the Step-Up Range instruction.

#### Proposed Retail Order Designation

Currently, under Rule 11.24(f)(2), a resting RPI Order is eligible to execute against a Type 2-designated Retail Order (a “Type 2 Order”)<sup>37</sup> that has exhausted all price improving liquidity on the BYX Book even if the RPI Order is not providing price improvement, as a Type 2 Order is eligible to execute against all marketable liquidity once the order has interacted with all price improving liquidity. The Exchange proposes to amend Rule 11.24(f)(2) to provide that RPI Interest (inclusive of both RPI Orders and the proposed Enhanced RPI Orders) is ineligible to execute at prices equal to or inferior to the Protected NBB or Protected NBO. In the event that an RPI Order is ineligible to execute against a Type 2 Order because it is not providing at least \$0.001 of price improvement in securities priced at or above \$1.00 or at least \$0.0001 of price improvement in securities priced below

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appropriate to renew its request as the Program seeks to introduce Enhanced RPI Orders even as the fundamental nature of the Program is not changing.

<sup>37</sup> See Rule 11.24(f)(2). A Type 2-designated Retail Order will interact first with available price improving RPI Orders and other price improving liquidity and then any remaining portion of the Retail Order will be executed as an IOC Order pursuant to Rule 11.9(b)(1). A Type 2-designated Retail Order can either be submitted as a BYX Only Order or as an order eligible for routing pursuant to Rule 11.13(a)(2). The Exchange proposes to make clear in Rule 11.24(f)(2) that the remaining portion of a Type 2-designated Retail Order will be ineligible to execute against contra-side RPI Interest that is not priced better than the Protected NBB or Protected NBO.

\$1.00, the Exchange will not cancel the resting RPI Interest. Rather, the RPI Interest will persist on the BYX Book and will become eligible to execute should the Protected NBB or Protected NBO move to a price that permits the RPI Interest to provide price improvement. The proposed change is being made in order to limit RPI Interest to only providing executions that provide price improvement to contra-side Retail Orders, consistent with the definition of an RPI Order, the proposed definition of an Enhanced RPI Order, and the description of RPI Order functionality in the Exchange's previous Pilot Approval Order and RPI Approval Order.

#### Proposed Order Priority

As discussed above, the proposed Enhanced RPI Order will be ranked according to its limit price then time of entry into the System. With the introduction of the proposed Enhanced RPI Order, the Exchange proposes to reorganize Rule 11.24(g) into Rule 11.24(g)(1) – (3). The Exchange also proposes to rename Rule 11.24(g) as “Order Priority” and remove the current reference to order allocation as the example utilized within current Rule 11.24(g) and shows order allocation will be deleted as discussed *supra*. Proposed Rule 11.24(g) will serve as an introductory paragraph and will contain the existing rule text found in current Rule 11.24(g) that describes order priority with respect to RPI Orders. The Exchange proposes to amend the existing rule text in Rule 11.24(g) to replace RPI Orders with RPI Interest and to clarify that RPI Interest is ineligible to execute at prices that are equal to or inferior to the Protected NBB or Protected NBO. RPI Interest that is ineligible to execute due to being priced equal to or inferior to the Protected NBB or Protected NBO will not be cancelled and will become eligible to execute against Retail Orders should the RPI Interest become priced better than the Protected NBB or Protected NBO at a later time. The

Exchange proposes to remove the example of RPI Order priority contained within current Rule 11.24(g)<sup>38</sup> as it is duplicative of proposed rule text which describes that RPI Orders are to be ranked and executed in accordance with Rule 11.12 and also as described in Rule 11.24(g), as applicable. Proposed Rule 11.24(g) will also provide that Enhanced RPI Orders have the ability to gain execution priority over resting same-side orders on the BYX Book with higher price/time priority in the same security if certain criteria is satisfied.

Proposed Rule 11.24(g)(1) describes three instances in which the Step-Up Range instruction of an Enhanced RPI Order will be utilized to determine at what price an Enhanced RPI Order must execute versus a contra-side Retail Order in order to gain price priority over resting same-side orders on the BYX Book with higher price/time priority in the same security. Pursuant to proposed Rule 11.24(g)(1)(A), the Step-Up Range instruction of an Enhanced RPI Order will be utilized when the Step-Up Range instruction is needed to gain priority over a resting same-side order (excluding resting Enhanced RPI Orders) on the BYX Book with higher price/time priority. As discussed *infra* in proposed Rule 11.24(g)(2) and proposed Rule 11.24(g)(3), an Enhanced RPI Order shall gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security if the Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order than would be provided by the resting same-side order on the BYX Book.

Second, under proposed Rule 11.24(g)(1)(B), the Step-Up Range instruction of an Enhanced RPI Order will be utilized in situations where: (i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the ranked price (i.e., its limit price) of the

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<sup>38</sup> Supra footnote 33.

Enhanced RPI Order and all other resting liquidity and (ii) the price of the Enhanced RPI Order following application of the Step-Up Range instruction is priced equal to or higher (lower) than the Retail Order's limit price. In this scenario, an Enhanced RPI Order will execute versus a contra-side Retail Order at the Retail Order's limit price.<sup>39</sup> This situation is also applicable to an Enhanced RPI Order that is also a Primary Pegged Order. The limit price of an Enhanced RPI Order that is also a Primary Pegged Order will be adjusted by any applicable offset and the Step-Up Range instruction applied to the resulting ranked price.

Lastly, as described in proposed Rule 11.24(g)(1)(C), the Step-Up Range instruction of an Enhanced RPI Order will be utilized to determine order book priority when multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of resting same-side orders on the BYX Book with higher price/time priority that are not Enhanced RPI Orders. Priority will be given to the Enhanced RPI Order with the Step-Up Range instruction that could result in the highest (for an Enhanced RPI Order to buy) or lowest (for an Enhanced RPI Order to sell) possible execution price for the contra-side Retail Order, even if the resulting execution does not occur at the highest (lowest) maximum execution price that is permitted by the Step-Up Range instruction. The actual execution price provided to the Retail Order will be the price the Enhanced RPI Order needs to step up to as described in proposed Rule 11.24(g)(1)(A) and proposed Rule 11.24(g)(1)(B).

Proposed Rule 11.24(g)(1)(C)(i) describes an exception to utilizing the Step-Up Range instruction in order to determine order book priority and applies when there are multiple Enhanced RPI Orders resting on the BYX Book, no other resting same-side liquidity with higher priority, and an incoming Retail Order to sell (buy) is priced lower

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<sup>39</sup> See Example 9, *infra*.

(higher) than the ranked prices of the resting Enhanced RPI Orders. In this instance, execution priority will be determined by the higher ranked price and not the Step-Up Range instruction of the Enhanced RPI Orders. An Enhanced RPI Primary Pegged Order will have its priority determined by the ranked price that results after the application of the Offset Amount as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A) and will not include the Step-Up Range instruction. The Enhanced RPI Orders will execute pursuant to Rule 11.12 in standard price/time priority according to their limit prices or resulting ranked prices after application of the applicable positive or negative offset in the case of Enhanced RPI Primary Pegged Orders.

Proposed Rule 11.24(g)(2) provides that for securities priced at or above \$1.00 an Enhanced RPI Order shall gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security if the Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order, as provided for in proposed Rule 11.24(g)(1)(A) – (C). In order to gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security, an Enhanced RPI Order must be able to step up to the next valid tick increment. Proposed Rules 11.24(g)(2)(A) – (C) provide certain scenarios where an Enhanced RPI Order may only need to provide a half cent of price improvement or less in order to gain priority over resting same-side orders on the BYX Book with higher price/time priority.

Proposed Rule 11.24(g)(2) also provides that Enhanced RPI Orders in securities priced at or above \$1.00 may include a Step-Up Range instruction priced in \$0.001 increments, but these orders shall not gain priority over other same-side resting orders on the BYX Book if the Step-Up Range instruction is unable to step up to the NBBO midpoint or

the next full cent. Step-Up Range instructions priced in increments finer than \$0.01 will be capped at the maximum executable price based on a valid tick increment or midpoint and will not be executable at the maximum price of the Step-Up Range instruction. Further, proposed Rule 11.24(g)(2) states that if there are no resting Enhanced RPI Orders on the BYX Book that are able to provide a greater amount of price improvement than other resting same-side orders on the BYX Book with higher price/time priority in the same security, then an incoming Retail Order may execute against those resting same-side orders on the BYX Book in price/time priority in accordance with Rule 11.12. Any remaining unexecuted portion of the Retail Order will cancel or execute in accordance with proposed Rule 11.24(f). Additionally, proposed Rule 11.24(g)(2) provides that the Step-Up Range instruction of an Enhanced RPI Order shall have priority over the discretionary offset of a Discretionary Order.<sup>40</sup>

Proposed Rule 11.24(g)(2)(A) provides that if the NBBO midpoint is priced in a half-cent increment (e.g., \$10.005) and the best-priced resting order on the BYX Book is ranked at the NBBO midpoint (e.g., \$10.005), the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the next full cent above (for buy orders) or below (for sell orders) the NBBO midpoint (e.g., \$10.01 for buy orders or \$10.00 for sell orders). Proposed Rule 11.24(g)(2)(B) provides that if the NBBO midpoint is priced in a half-cent increment (e.g., \$10.005) and the best-priced resting order on the BYX Book to buy (sell) is ranked at the full cent below (above) the NBBO midpoint (e.g., \$10.00 or \$10.01), the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced

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<sup>40</sup> See Rule 11.12 (Priority of Orders) section *infra* for additional discussion of the Exchange's proposal to amend its order priority rules in order to account for the Step-Up Range instruction of an Enhanced RPI Order.

RPI Order to step up to the NBBO midpoint (e.g., \$10.005 or beyond). In the event that an RPI Order priced in an \$0.001 increment is resting on the BYX Book, proposed Rule 11.24(g)(2)(C) provides that the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the closer of the NBBO midpoint or the next full cent above (for buy orders) or below (for sell orders) the NBBO midpoint in order to gain priority over the resting RPI Order (e.g., an Enhanced RPI Order with a limit price of \$10.00 must contain a Step-Up Range instruction of at least \$0.005 in order to gain priority over a resting RPI Order with a limit price of \$10.001).

Proposed Rule 11.24(g)(3) provides that for securities priced below \$1.00, Enhanced RPI Orders shall be granted price priority over resting same-side orders on the BYX Book if the Enhanced RPI Order's Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order by stepping up to the next minimum price increment. The Exchange notes that the System does not support fractional penny quotations or executions priced in \$0.00001 increments and finer in securities priced below \$1.00 but does support quotations and executions in fractional pennies priced in increments up to \$0.0001.

#### Proposed Amendment to Rule 11.12 (Priority of Orders)

In conjunction with the proposed reorganization of Rule 11.24(g), the Exchange also proposes to amend current Rule 11.12 (Priority of Orders) in order to introduce a priority band for the Step-Up Range instruction of an Enhanced RPI Order. The Exchange proposes to replace the current text of Rule 11.12(a)(2)(F) with "The Step-Up Range instruction of an Enhanced RPI Order as set forth in Rule 11.24[;]." In addition, the Exchange proposes to move the current text of Rule 11.12(a)(2)(F) ("Discretionary portion of Discretionary Orders

as set forth in Rule 11.9(c)(9)”) to Rule 11.12(a)(2)(G), revise the rule reference found in current Rule 11.12(a)(2)(F) to correct an error, and introduce new Rule 11.12(a)(2)(H), which will contain the text (“Supplemental Peg Orders”) currently found in Rule 11.12(a)(2)(G).

Introducing a new priority band for the Step-Up Range instruction associated with an Enhanced RPI Order will establish that in situations where an Enhanced RPI Order is executable inside its Step-Up Range instruction at the same price as a Discretionary Order that is executable inside the discretionary portion of its order, the Step-Up Range instruction associated with the Enhanced RPI Order will have priority over the discretionary portion of the Discretionary Order. The Exchange believes that assigning priority to the Step-Up Range instruction of the Enhanced RPI Order is appropriate because Users choosing to submit Enhanced RPI Orders would be providing price improvement over other same-side resting orders on the BYX Book in order to trade at higher (for buy orders) or lower (for sell orders) prices when needed in order to execute against a contra-side Retail Order. Given that a User submitting an Enhanced RPI Order with a Step-Up Range instruction would be providing price improvement (i.e., a more favorable price) in order to execute against an incoming contra-side Retail Order, the Exchange believes it is appropriate to rank the Step-Up Range instruction ahead of the discretionary portion of a Discretionary Order in proposed Rule 11.12(a)(2).

The Exchange has included the examples below to show how order priority with an Enhanced RPI Order will be determined. In the examples below, the Retail Liquidity Identifier (discussed *infra*) is presumed to be displayed unless stated otherwise. Additionally, all Retail Orders described in the examples are presumed to be Type 1-

designated Retail Orders<sup>41</sup> unless otherwise specified.

**Example 1**<sup>42</sup>

In order to illustrate priority of an Enhanced RPI Order over other Non-Displayed Orders<sup>43</sup> resting on the BYX Book, consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Mid-Point Peg<sup>44</sup> order to buy ABC at \$10.03 for 100. User 1's order is ranked at \$10.025 as the User elected that the Mid-Point Peg order be pegged to the mid-point of the NBBO.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.01 and is willing to step-up to a maximum price of \$10.03.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order for 100 will execute against User 2's Enhanced RPI Order at \$10.03. While User 1's order is ranked at a higher price (\$10.025) than User 2's order (\$10.01), User 2's order includes a Step-Up Range instruction of \$0.02 and is willing to step up to a maximum price of \$10.03, which provides additional price improvement to User 3's Retail Order than User 1's Mid-Point Peg

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<sup>41</sup> See Rule 11.24(f)(1). A Type 1-designated Retail Order will interact with available contra-side RPI Order and other price improving contra-side interest but will not interact with other available interest in the System that is not offering price improvement or route to other markets. The portion of a Type 1-designated Retail Order that does not execute against contra-side RPI Orders or other price improving liquidity will be immediately and automatically cancelled. The Exchange notes that proposed Rule 11.24(f)(1) will be updated to reflect "contra-side RPI Interest" to capture both RPI Orders and Enhanced RPI Orders.

<sup>42</sup> See proposed Rule 11.24(g)(1)(A) and Rule 11.24(g)(2)(A).

<sup>43</sup> See Rule 11.9(c)(11). A Non-Displayed Order is a market or limit order that is not displayed on the Exchange.

<sup>44</sup> Supra note 28.

Order. As User 2's order provides an additional \$0.005 of price improvement over User 1's midpoint price, the Exchange gives priority to User 2's Enhanced RPI Order.

**Example 2<sup>45</sup>**

There are two situations in which an Enhanced RPI Order may only need to step-up one-half cent in order to earn queue priority in securities priced at or above \$1.00. First, when the NBBO midpoint is priced in a half cent and the Enhanced RPI Order is stepping up from the half-cent midpoint to the next full cent in order to provide price improvement (see Example 1 above). The second instance occurs when the best-priced resting order on the BYX Book is ranked at a whole cent, and the NBBO midpoint is priced in a half cent increment, the Enhanced RPI Order will only need to step up to the NBBO midpoint in order to earn queue priority. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.02 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.03.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order for 100 will execute against User 2's Enhanced RPI Order at \$10.025. While User 1's order is ranked at a higher price (\$10.02) than User 2's order (\$10.01), User 2 has included a Step-Up Range instruction of \$0.02 on its order and is willing to step up to a maximum price of \$10.03 in order to

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<sup>45</sup>

See proposed Rule 11.24(g)(1)(A) and Rule 11.24(g)(2)(B).

provide additional price improvement as compared to other orders resting on the BYX Book. Even though User 2's order may execute up to a price of \$10.03, it only needs to step up to the NBBO midpoint of \$10.025. User 2's Enhanced RPI Order thus provides price improvement at the NBBO midpoint over User 1's ranked price of \$10.02 and is granted priority over User 1's Non-Displayed Order.

**Example 3<sup>46</sup>**

In most instances, an Enhanced RPI Order will need to step-up a full penny in order to earn queue priority. Consider the following:

- The Protected NBBO for security ABC is \$10.00 x \$10.10.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.03 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.04. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order for 100 will execute against User 2's Enhanced RPI Order at \$10.04. While User 1's order is ranked at a higher price (\$10.03) than User 2's order (\$10.01), User 2 has included a Step-Up Range instruction of \$0.04 on its order and is willing to step up to a maximum price of \$10.05 in order to provide additional price improvement as compared to other orders resting on the BYX Book. Even though User 2's order may execute up to a price of \$10.05, it only needs to provide one penny of price improvement above User 1's ranked price of \$10.03 in order to earn queue priority.

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<sup>46</sup> See proposed Rule 11.24(g)(1)(A).

**Example 4<sup>47</sup>**

There may be instances where there is no other liquidity resting on the BYX Book against which the Enhanced RPI Order can step up against. In these instances, the Enhanced RPI Order will trade at its ranked price. Consider the following example.

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.015. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.025.
  - User 2 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 2's Retail Order for 100 will execute against User 1's Enhanced RPI Order at its limit price of \$10.01 as there are no better-priced orders resting on the BYX Book against which User 1 would need to provide greater price improvement to User 2.

**Example 5<sup>48</sup>**

There may be instances where there is no other liquidity resting on the BYX Book against which the Enhanced RPI Order can step up against. In these instances, the Enhanced RPI Order will trade at its ranked price. Consider the following example.

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.001 for 100. User 1's Step-Up Range instruction is \$0.015. User 1's order is ranked at \$10.001 and is willing to step up to a maximum price of \$10.016.

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<sup>47</sup> See proposed Rule 11.24(g).

<sup>48</sup> See proposed Rule 11.24(g).

- User 2 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 2's Retail Order for 100 will execute against User 1's Enhanced RPI Order at its limit price of \$10.001 as there are no better-priced orders resting on the BYX Book against which User 1 would need to provide greater price improvement to User 2.

**Example 6<sup>49</sup>**

There may be instances where an Enhanced RPI Order has a ranked price equal to the NBB (NBO), there is no other liquidity resting on the BYX Book against which the Enhanced RPI Order can step up against, and a contra-side Retail Order is entered with a ranked price equal to the NBB (NBO). In this instance, the Exchange will not utilize the Step-Up Range instruction to create an execution. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.00 for 100. User 1's Step-Up Range instruction is \$0.001. User 1's order is ranked at \$10.00 and is willing to step up to a maximum price of \$10.001. The Retail Liquidity Identifier is not displayed as the ranked price of \$10.00 is equal to the NBB and the Retail Liquidity Identifier will only display when there is RPI Interest priced at least \$0.001 better than the Protected NBB or Protected NBO.
  - User 2 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** No execution will occur. User 1's Enhanced RPI Order has a ranked price equal to the Protected NBB at \$10.00. User 2's Retail Order is entered with a

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<sup>49</sup>

See proposed Rule 11.24(g). See also proposed Rule 11.24(a)(4).

ranked price of \$10.00. Pursuant to proposed Rule 11.24(a)(4), an Enhanced RPI Order is ineligible to execute if it is priced equal to or inferior to the Protected NBB and will not be canceled. In this instance, there is no other resting liquidity on the BYX Book for which the Step-Up Range instruction would be utilized to gain queue priority against. As such, the Exchange does not believe it is appropriate to utilize the Step-Up Range instruction of the Enhanced RPI Order to create an execution that otherwise would not occur. Since no execution occurs, User 2's Retail Order is cancelled due to its time-in-force of IOC.

**Example 7<sup>50</sup>**

Enhanced RPI Orders will only have priority against other better-priced liquidity resting on the BYX Book in the event that the Enhanced RPI Order can step-up to the next half cent or full cent. In the example below, the Enhanced RPI Order is unable to step up against the best priced order on the BYX Book but is able to step up against an order ranked at the next best price level. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.04 for 100.
  - User 2 enters a Non-Displayed Order to buy ABC at \$10.02 for 100.
  - User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.03. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.04.
  - User 4 enters a Retail Order to sell ABC at \$10.00 for 150.
- **RESULT:** User 4's Retail Order will execute 100 shares first with User 1's Non-

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<sup>50</sup>

See proposed Rule 11.24(g)(1)(A) and Rule 11.24(g)(2)(A).

Displayed Order as User 1's Non-Displayed Order has price priority over the orders submitted by Users 2 and 3. While User 3's Enhanced RPI Order includes a Step-Up Range instruction of \$0.03 and is willing to execute up to a maximum price of \$10.04, the Step-Up Range instruction does not provide greater price improvement for User 4's Retail Order as compared to User 1's Non-Displayed Order and as such, User 3's Enhanced RPI Order does not have priority over User 1's Non-Displayed Order. Once User 4's Retail Order executes against User 1's Non-Displayed Order, 50 shares remain on User 4's Retail Order. User 4's Retail Order will then execute its remaining 50 shares with User 3's Enhanced RPI Order at a price of \$10.025. While User 2's Non-Displayed Order is ranked at a higher price (\$10.02) than User 3's Enhanced RPI Order (\$10.01), User 3's Enhanced RPI Order has a Step-Up Range instruction of \$0.03 and is willing to execute up to a maximum price of \$10.04 and User 2's Non-Displayed Order does not contain a Step-Up Range instruction. As User 3's Enhanced RPI Order is willing to provide greater price improvement as compared to a better-priced order resting on the same side of the BYX Book, it is given priority over User 2's Non-Displayed Order. User 3's Enhanced RPI Order executes 50 shares against User 4's Non-Displayed Order at a price of \$10.025 because it provides one-half cent of price improvement over User 2's ranked price of \$10.02.

**Example 8<sup>51</sup>**

Enhanced RPI Orders will execute within their Step-Up Range instruction when the incoming Retail Order's price is not executable at the Enhanced RPI Order's ranked price.

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<sup>51</sup> See proposed Rule 11.24(g)(1)(B).

Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.03. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.04.
  - User 2 enters a Retail Order to sell ABC at \$10.03 for 100.
- **RESULT:** User 2's Retail Order will execute with User 1's Enhanced RPI Order at \$10.03 as the limit price of User 2's Retail Order (\$10.03) is within the maximum price provided by User 1's Step-Up Range instruction.

**Example 9<sup>52</sup>**

When there are multiple Enhanced RPI Orders resting on the BYX Book, no other same side liquidity with higher priority, and the contra-side Retail Order is priced higher (for buy orders) or lower (for sell orders) than the resting Enhanced RPI Orders' ranked prices, execution priority will be determined by the higher ranked price and not by the Step-Up Range instructions of the Enhanced RPI Orders. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.02 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.02 and is willing to step up to a maximum price of \$10.04.

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<sup>52</sup> See proposed Rule 11.24(g)(1)(C)(i).

- User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order will execute with User 2's Enhanced RPI Order at \$10.02 because User 2's Enhanced RPI Order has price priority over User 1's Enhanced RPI Order due to its higher ranked price of \$10.02. Given that User 3's Retail Order was priced lower than the resting Enhanced RPI Orders' ranked prices at its time of entry, the Exchange believes that priority should be determined by using the ranked price of the Enhanced RPI Orders resting on the BYX Book at the time of User 3's Retail Order entry.

**Example 10<sup>53</sup>**

The Step-Up Range instruction will be used to determine order book priority in situations where: i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the Enhanced RPI Order's limit price and all other resting liquidity in the same security and ii) the Enhanced RPI Order's Step-Up Range instruction is priced equal to or higher (lower) than the Retail Order's limit price. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters a Non-Displayed Order to buy ABC at \$10.02 for 100. User 2's order is ranked at \$10.02.
  - User 3 enters a Retail Order to sell ABC at \$10.03 for 100.
- **RESULT:** User 3's order will execute with User 1's Enhanced RPI Order at \$10.03

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<sup>53</sup> See proposed Rule 11.24(g)(1)(B).

because i) User 3's Retail Order to sell was entered at a higher price than the ranked price of both User 1 and User 2's orders; and ii) the maximum price provided by the Step-Up Range instruction of User 1's Enhanced RPI Order is higher (\$10.05) than the limit price of User 3's Retail Order (\$10.03). Even though User 2's ranked price is higher than User 1's ranked price, User 2's order is not marketable against User 3's Retail Order. User 3's Retail Order would otherwise be unable to execute if the Exchange did not look to the price improvement provided by User 1's Step-Up Range instruction to permit an execution between User 1 and User 3.

**Example 11<sup>54</sup>**

The Step-Up Range instruction will be used to determine order book priority in situations where multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of higher priority orders resting on the BYX Book. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.02 for 100. User 2's Step-Up Range instruction is \$0.02. User 2's order is ranked at \$10.02 and is willing to step up to a maximum price of \$10.04.
  - User 3 enters a Non-Displayed Order to buy ABC at \$10.03 for 100. User 3's order is ranked at \$10.03.

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<sup>54</sup>

See proposed Rule 11.24(g)(1)(C).

- User 4 enters a Retail Order to sell ABC at \$10.03 for 100.
- **RESULT:** User 4's Retail Order will execute with User 1's Enhanced RPI Order at \$10.04 because the Exchange looks to the Step-Up Range instruction to determine order book priority when there are multiple Enhanced RPI Orders resting on the BYX Book that are willing to provide additional price improvement as compared to other orders resting on the BYX Book. While both User 1 and User 2 can execute at a price of \$10.04, User 1's Enhanced RPI Order can result in a higher maximum possible execution price (step up range of \$0.04; maximum price of \$10.05) as compared to User 2's Enhanced RPI Order (step up range of \$0.02; maximum price of \$10.04). As such, User 1's Enhanced RPI Order is given priority ahead of User 2's Enhanced RPI Order to execute against User 4's Retail Order. In this instance, when there are multiple Enhanced RPI Orders that can provide price improvement to the contra-side Retail Order, the Exchange believes it is appropriate to grant order book priority to the Enhanced RPI Order containing the Step-Up Range instruction that could result in the highest (in the event of a buy order) or lowest (in the event of a sell order) potential maximum execution price, even if the resulting execution does not occur at the highest (lowest) maximum execution price. By granting execution priority to the User who's Enhanced RPI Order results in the highest (lowest) potential maximum execution price, the Exchange is encouraging Users to submit aggressively priced orders. As such, the Exchange believes it is appropriate to give priority to User 1's Enhanced RPI Order in this instance because User 1's Enhanced RPI Order (Step-Up Range instruction of \$0.04; maximum price of \$10.05) could potentially result in a higher maximum execution price than User 2's Enhanced RPI

Order (Step-Up Range instruction of \$0.02; maximum price of \$10.04) and is therefore willing to provide additional price improvement to Retail Orders as compared to User 2's Enhanced RPI Order.

**Example 12<sup>55</sup>**

Enhanced RPI Orders will have price priority over resting RPI Orders (that do not contain a Step-Up Range instruction) on the BYX Book so long as the Step-Up Range instruction of the Enhanced RPI Order is greater than the limit price of the resting RPI order. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 2 enters an RPI Order to buy ABC at \$10.02.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order will execute with User 1's Enhanced RPI Order at a price of \$10.025 because User 1's Enhanced RPI Order containing a Step-Up Range instruction allows User 3's Retail Order to receive an additional one-half cent price improvement as compared to the ranked price of User 2's RPI Order. While User 2's RPI Order had a higher ranked price (\$10.02) than User 1's Enhanced RPI Order (\$10.01), User 2's RPI Order did not contain a Step-Up Range instruction. Given that Enhanced RPI Orders are designed to provide price improvement against all resting orders on the BYX Book, the Exchange believes this factor favors using

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<sup>55</sup>

See proposed Rule 11.24(g)(1)(A).

the price improvement provided by the Step-Up Range instruction in order to determine priority in situations where there are both resting RPI and Enhanced RPI Orders on the BYX Book. While RPI Orders do provide at least \$0.001 of price improvement as compared to the Protected NBBO, Enhanced RPI Orders allow for price improvement to the next valid half cent or full cent as the transaction is priced above \$1.00. Thus, using the Step-Up Range instruction to determine priority when RPI Orders are resting on the BYX Book results in an increased amount of price improvement for the contra-side Retail Order.

**Example 13<sup>56</sup>**

There may be situations in which an Enhanced RPI Order that is granted order book priority over a resting same-side RPI Order will provide between \$0.001 - \$0.004 of price improvement over the same-side order when stepping up to the next NBBO midpoint or next full cent. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an RPI Order to buy ABC at \$10.024 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.04. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order executes against User 2's Enhanced RPI Order at a price of \$10.025 because it is able to earn queue priority by providing price improvement at the NBBO midpoint. While User 1's RPI Order (\$10.024) had a

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<sup>56</sup>

See proposed Rule 11.24(g)(1)(A).

higher ranked price than User 2's Enhanced RPI Order (\$10.01), User 2's Enhanced RPI Order contains a Step-Up Range instruction that is willing to step up to a maximum price of \$10.05. As discussed in footnote 25 *supra*, the Exchange believes that it is appropriate to grant priority to an Enhanced RPI Order with a Step-Up Range instruction that provides at least \$0.001 of price improvement to the Retail Order and permits the Enhanced RPI Order to step up to the next NBBO midpoint or next full cent when there is a resting RPI Order on the BYX Book in a security priced at or above \$1.00. While the Step-Up Range instruction of the Enhanced RPI Order is only providing \$0.001 of price improvement as compared to the RPI Order with a limit price of \$10.024, the total amount of price improvement as compared to the Retail Order's limit price of \$10.00 is \$0.025.

**Example 14**<sup>57</sup>

Enhanced RPI Orders may also improve against displayed orders resting on the BYX Book in order to provide price improvement to a contra-side Retail Order. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters an Enhanced RPI Order to buy ABC at \$9.99 for 100. User 1's Step-Up Range instruction is \$0.06. User 1's order is ranked at \$9.99 and is willing to step up to a maximum price of \$10.05. The Retail Liquidity Identifier is not displayed as the limit price of \$9.99 is below the NBB and the Retail Liquidity Identifier will only display when there is RPI Interest priced at least \$0.001 better than the Protected NBB or Protected NBO.

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<sup>57</sup> See proposed Rule 11.24(g)(1)(A).

- User 2 enters a displayed order to buy ABC at \$10.00 for 100.
- User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 3's Retail Order will execute with User 1's Enhanced RPI Order at a price of \$10.01. While User 2's displayed order is displayed and ranked at a higher price (\$10.00) than User 1's Enhanced RPI Order (\$9.99), User 1's Enhanced RPI Order includes a Step-Up Range instruction of \$0.06 on its order, which permits the order to execute up to a maximum price of \$10.05. In this instance, executing User 2's displayed order at \$10.00 does not provide any price improvement to the Retail Order when User 1's Enhanced RPI Order is resting on the BYX Book and is willing to provide additional price improvement to Order 3 than Order 2 is willing to provide. User 1's Enhanced RPI Order is willing to step up to the next full cent above \$10.00 (in this case, \$10.01), which provides a full penny of price improvement to User 3's Retail Order. As such, this is the price at which User 3's Retail Order executes with User 1's Enhanced RPI Order.

**Example 15<sup>58</sup>**

The ranked price of an Enhanced RPI Primary Pegged Order is the price that results after the application of the Offset Amount, as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). The Step-Up Range instruction is applied to an Enhanced RPI Primary Pegged Order following the application of the Offset Amount. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.03 for 100.

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<sup>58</sup>

See proposed Rule 11.24(g)(1)(A).

- User 2 enters an Enhanced RPI Primary Pegged Order to buy ABC at \$10.02 for 100. User 2's Step-Up Range instruction is \$0.03. User 2's order includes an offset of \$0.01. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.04.
- The Protected NBBO for security ABC changes to \$10.01 x \$10.05.
  - User 2's Enhanced RPI Primary Pegged Order is now ranked at \$10.02 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.01 for 100.
- **RESULT:** User 3's Retail Order will execute with User 2's Enhanced RPI Order at a price of \$10.04 because User 2's Enhanced RPI Order includes a Step-Up Range instruction of \$0.03 and is willing to execute up to a maximum price of \$10.05 (based on the Protected NBBO and the offset of \$0.01 at the time User 3's order is entered) in order to provide additional price improvement as compared to other orders resting on the BYX Book. While User 1's order has a higher limit price (\$10.03) than User 2's Enhanced RPI Order (\$10.02, based on the Protected NBBO and the offset of \$0.01 at the time User 3's order is entered), User 2's Enhanced RPI Order is given queue priority due to its ability to provide \$0.01 of price improvement over User 1's order.

**Example 16**<sup>59</sup>

Enhanced RPI Orders may also improve upon resting orders that are BYX Post Only Orders in order to provide price improvement to contra-side Retail Orders. Consider the following example:

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<sup>59</sup> See proposed Rule 11.24(g)(1)(A).

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - User 1 enters BYX Post Only Order to buy ABC at \$10.02 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.04. User 2's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 3 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 2's Enhanced RPI Order executes against User 3's Retail Order at \$10.03. While User 1's BYX Post Only Order is ranked at a higher price (\$10.02) than User 2's order, User 2's Enhanced RPI Order is willing to step-up \$0.04 over the best-priced resting order to gain queue priority. While User 2 can step-up to a price of \$10.05, User 2's Enhanced RPI Order only needs to step-up to a price of \$10.03 in order to gain queue priority over User 1's BYX Post Only Order.

**Example 17<sup>60</sup>**

Enhanced RPI Orders may improve upon resting orders that are BYX Post Only Orders appended with a Price Adjust instruction in order to provide price improvement to contra-side Retail Orders. Consider the following example:

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - There is no offer on BYX at \$10.05.
  - User 1 enters a BYX Post Only Order (Price Adjust) to buy ABC at \$10.05 for 100. User 1's order is displayed and ranked at \$10.04.
  - Protected NBBO updates to \$10.04 x \$10.05.
  - User 2 enters a displayed BYX Post Only Order to sell ABC at \$10.05 for

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<sup>60</sup> See proposed Rule 11.24(g)(1)(A).

100. User 2's order is displayed and ranked at \$10.05.
- User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.04. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 4 enters a Retail Order to sell ABC at \$10.00 for 100.
  - **RESULT:** User 3's Enhanced RPI Order executes against User 4's Retail Order at \$10.045. While User 1's BYX Post Only Order with Price Adjust is ranked at a higher price (\$10.04) than User 3's order (\$10.01), User 3's Enhanced RPI Order is willing to step up to a maximum price of \$10.05 to gain queue priority. While User 3 is willing to step up to a maximum price of \$10.05, User 3's Enhanced RPI Order only needs to step up to the NBBO midpoint of \$10.045 in order to earn queue priority. User 3's Enhanced RPI Order does not execute against User 2's displayed BYX Post Only Order with a ranked price of \$10.05 even though it is willing to step up to a maximum price of \$10.05 because User 2's BYX Post Only Order is not a Retail Order. Enhanced RPI Orders may only execute against contra-side Retail Orders.

**Example 18<sup>61</sup>**

Enhanced RPI Orders in securities priced at or above \$1.00<sup>62</sup> may not be able to improve upon resting orders if there is a displayed bid or offer that prevents the Step-Up Range instruction of the Enhanced RPI Order from being able to provide price improvement to a contra-side Retail Order. Consider the following example:

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<sup>61</sup> See proposed Rule 11.24(g)(1)(A).

<sup>62</sup> See rule 11.9(c)(6). The Exchange does not currently accept BYX Post Only Orders in securities priced below \$1.00.

- The Protected NBBO for security ABC is \$10.00 x \$10.05.
  - There is no offer on BYX at \$10.05.
  - User 1 enters a BYX Post Only Order (Display Price Slide) to buy ABC at \$10.05 for 100. User 1's order is displayed at \$10.04 and ranked non-displayed at \$10.05.
  - Protected NBBO updates to \$10.04 x \$10.05.
  - User 2 enters a displayed BYX Post Only Order to sell ABC at \$10.05 for 100. User 2's order is displayed and ranked at \$10.05.
  - The executable price of User 1's order is adjusted to \$10.045.<sup>63</sup>
  - User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.04. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
  - User 4 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 1's displayed BYX Post Only Order executes against User 4's Retail Order at \$10.045. While User 3's Enhanced RPI Order is willing to step up to a maximum price of \$10.05 to gain queue priority, User 3's Enhanced RPI Order is not eligible to trade at \$10.05 while the Exchange has a displayed offer at \$10.05. The Exchange does not permit User 3's Enhanced RPI Order to utilize its Step-Up Range instruction to step up to a price of \$10.046 as that is not an NBBO midpoint or the next full cent. As such, User 4's Retail Order can only execute against User

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<sup>63</sup>

See Rule 11.13(a)(4)(D). For bids or offers priced at or above \$1.00, in the event that an incoming order is a market order or is a limit order priced more aggressively than the displayed order, the Exchange will execute the incoming order at, in the case of an incoming sell order, one-half minimum price variation less than the price of the displayed order, and, in the case of an incoming buy order, at one-half minimum price variation more than the price of the displayed order.

1's displayed BYX Post Only Order at a price of \$10.045.

**Example 19<sup>64</sup>**

Enhanced RPI Orders in securities priced below \$1.00 similarly may not be able to improve upon resting orders if there is a displayed bid or offer that prevents the Step-Up Range instruction of the Enhanced RPI Order from being able to provide price improvement to a contra-side Retail Order. Consider the following example:

- The Protected NBBO for security ABC is \$0.50 x \$0.51.
  - There is no offer on BYX at \$0.51.
  - User 1 enters a displayed order (Price Adjust) to buy ABC at \$0.51 for 100. User 1's order is displayed and ranked at \$0.5099.
  - Protected NBBO updates to \$0.5099 x \$0.51.
  - User 2 enters a displayed order to sell ABC at \$0.51 for 100. User 2's order is displayed and ranked at \$0.51.
  - User 3 enters an Enhanced RPI Order to buy ABC at \$0.5090 for 100. User 3's Step-Up Range instruction is \$0.001. User 3's order is ranked at \$0.5090 and is willing to step up to a maximum price of \$0.51.
  - User 4 enters a Retail Order to sell ABC at \$0.5099 for 100.
- **RESULT:** User 4's Retail Order executes against User 1's displayed order at \$0.5099. While User 3's Enhanced RPI Order is willing to step up to a maximum price of \$0.51 to gain queue priority, User 3's Enhanced RPI Order is not eligible to trade at \$0.51 while the Exchange has a displayed offer at \$0.51. The Exchange does not permit User 3's Enhanced RPI Order to utilize its Step-Up Range instruction to

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<sup>64</sup>

See proposed Rule 11.24(g)(1)(A).

step up to a price of \$0.50995 as the Exchange does not execute orders priced out to five decimal places in securities priced below \$1.00.<sup>65</sup> As such, the Step-Up Range instruction of User 3's Enhanced RPI Order cannot earn queue priority and User 4's Retail Order can only execute against User 1's displayed order at a price of \$0.5099.

**Example 20<sup>66</sup>**

Enhanced RPI Orders will also be available for securities priced below \$1.00. In order for an Enhanced RPI Order in a security priced below \$1.00 to gain queue priority over a same-side resting order, the Enhanced RPI Order must be able to step up to the next minimum price increment. Consider the following example:

- The Protected NBBO for security ABC is \$0.2001 x \$0.2025.
  - User 1 enters a Non-Displayed Order to buy ABC at \$0.2003 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$0.2002 for 100. User 2's Step-Up Range instruction is \$0.001. User 2's order is ranked at \$0.2002 and is willing to step up to a maximum price of \$0.2012.
  - User 3 enters a Retail Order to sell ABC at \$0.2001.
- **RESULT:** User 2's Enhanced RPI Order executes against User 3's Retail Order at a price of \$0.2004. While User 1's Non-Displayed Order is ranked at a higher price (\$0.2003) than User 2's Enhanced RPI Order (\$0.2002), User 2's Enhanced RPI Order included a Step-Up Range instruction of \$0.001 and is willing to execute at a price up to \$0.2012 in order to gain queue priority. The next minimum price increment above \$0.2003 is \$0.2004, which is inside User 2's Step-Up Range

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<sup>65</sup> See Rule 11.11(a)(2). The Exchange currently accepts and ranks orders priced below \$1.00 in \$0.0001 increments.

<sup>66</sup> See proposed Rule 11.24(g)(1)(A).

instruction and as such, User 2's order will have queue priority over User 1's order.

**Example 21<sup>67</sup>**

The below example is included to show the proposed change to Rule 11.24(f)(2) that does not permit a Type 2-designated Retail Order to execute against resting RPI Interest that is priced equal to the Protected NBB or Protected NBO.

- The Protected NBBO for security ABC is \$10.00 x \$10.05
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.02 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.00 for 100. User 2's Step-Up Range instruction is \$0.03. User 2's order is ranked at \$10.00 and is willing to step up to a maximum price of \$10.03. The Retail Liquidity Identifier is not displayed because the limit price of User 2's order is not priced at least \$0.001 better than the Protected NBB.
  - User 3 enters an RPI Order to buy ABC at \$10.00 for 100. The Retail Liquidity Identifier is not displayed because the limit price of User 3's order is not priced at least \$0.001 better than the Protected NBB.
  - User 4 enters a Non-Displayed Order to buy ABC at \$10.00 for 100.
  - User 5 enters a Type 2-designated Retail Order to sell ABC at \$10.00 for 400.
- **RESULT:** User 2's Enhanced RPI Order executes against User 5's Type 2 Order for 100 at a price of \$10.025 because the best-priced resting order on the BYX Book is ranked at a whole cent (\$10.02), and the NBBO midpoint is priced in a half cent increment.<sup>68</sup> User 1's Non-Displayed Order then executes against User 5's Type 2

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<sup>67</sup> See proposed Rule 11.24(f)(2); see also proposed Rule 11.24(g).

<sup>68</sup> See proposed Rule 11.24(g)(1)(A) and proposed Rule 11.24(g)(2)(B).

Order for 100 at a price of \$10.02 because User 1's order is priced better than the NBBO.<sup>69</sup> User 4's Non-Displayed Order then executes against 5's Type 2 Order for 100 at a price of \$10.00.<sup>70</sup> The remaining 100 shares of User 5's Type 2 Order are then cancelled or routed to an away market based on User 5's instruction. This example demonstrates proposed order priority where a Type 2 Order has a remaining quantity after executing against all price improving liquidity. Under current Rule 11.24(f)(2), order priority would differ in that User 5's Type 2 Order would execute against User 3's RPI Order at \$10.00 prior to executing against User 4's Non-Displayed Order due to price/time priority and would leave no remaining quantity to either cancel back or route to an away market.

**Example 22<sup>71</sup>**

Step-Up Range instructions priced in increments finer than \$0.01 will be capped at the maximum executable price based on a valid tick increment or NBBO midpoint and will not be executable at the maximum price of the Step-Up Range instruction. If a Member chooses to enter a Step-Up Range instruction priced in an increment finer than \$0.01, the Member's Enhanced RPI Order may not be able to gain price priority over other same-side resting orders on the BYX Book.

- The Protected NBBO for security ABC is \$10.00 x \$10.05
  - User 1 enters a Non-Displayed Order to buy ABC at \$10.01 for 100.
  - User 2 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 2's Step-Up Range instruction is \$0.01. User 2's order is ranked at \$10.01

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<sup>69</sup> See Rule 11.12(a)(1).

<sup>70</sup> See proposed Rule 11.24(a)(3) and proposed Rule 11.24(f)(2).

<sup>71</sup> See proposed Rule 11.24(g)(2).

and is willing to step up to a maximum price of \$10.02.

- User 3 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 3's Step-Up Range instruction is \$0.013. User 3's order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.023. User 3's order is subject to a cap at \$10.02 because \$10.023 is not a valid tick increment and \$10.02 is the closest valid tick increment to the maximum price provided by the Step-Up Range instruction.
- User 4 enters a Retail Order to sell ABC at \$10.00 for 100.
- **RESULT:** User 4's Retail Order will trade with User 2's Enhanced RPI Order at a price of \$10.02 because User 3's Enhanced RPI Order is subject to a cap at \$10.02 and User 2's Enhanced RPI Order has time priority. While User 3's Enhanced RPI Order included a Step-Up Range instruction of \$0.013 and was willing to step up to a maximum price of \$10.023, which is greater than User 2's maximum price of \$10.02, User 3's Enhanced RPI Order is capped at a price of \$10.02 because \$10.023 is not a valid tick increment and therefore is not able to execute at a price of \$10.023. As both User 2 and User 3 are willing to step up to a maximum price of \$10.02, priority is given to User 2's Enhanced RPI Order as it was entered prior to User 3's Enhanced RPI Order.

**Example 23<sup>72</sup>**

The Step-Up Range instruction of an Enhanced RPI Order shall have priority over the discretionary offset of a Discretionary Order. Consider the following example:

- Protected NBBO in security ABC is \$10.00 x \$10.05.

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<sup>72</sup>

See proposed Rule 11.24(g)(2). See also proposed Rule 11.12(a)(2).

- User 1 enters an Enhanced RPI Order to buy ABC at \$10.01 for 100. User 1's Step-Up Range instruction is \$0.04. User 1's Enhanced RPI Order is ranked at \$10.01 and is willing to step up to a maximum price of \$10.05.
- User 2 enters a Non-Displayed Order to buy ABC at \$10.01 for 100. User 2's order has a discretionary offset of \$0.04. User 2's order is ranked at \$10.01 and has discretion to execute up to a maximum price of \$10.05.
- User 3 enters a Retail Order to sell ABC at \$10.03 for 100.
- **RESULT:** User 3's Retail Order executes against User 1's Enhanced RPI Order at a price of \$10.03. Both User 1's Enhanced RPI Order and User 2's Non-Displayed Order have a ranked price of \$10.01. Similarly, both User 1's Enhanced RPI Order and User 2's Non-Displayed Order have the ability to execute up to a maximum price of \$10.05. However, User 2's Non-Displayed Order utilizes a discretionary offset of \$0.04 to achieve its maximum price while User 1's Enhanced RPI Order contains a Step-Up Range instruction of \$0.04. While both User 1's Step-Up Range instruction and User 2's discretionary offset would provide a maximum execution price of \$10.05, User 1's Step-Up Range instruction has higher execution priority under proposed Rule 11.12(a)(2)(F) as compared to User 2's discretionary offset, which has lower execution priority pursuant to proposed Rule 11.12(a)(2)(G).

**Example 24<sup>73</sup>**

The Step-Up Range instruction of an Enhanced RPI Order shall have priority over the discretionary offset of a Discretionary Order. Consider the following example:

- Protected NBBO in security ABC is \$10.00 x \$10.05.

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<sup>73</sup>

See proposed Rule 11.24(g)(2). See also proposed Rule 11.12(a)(2).

- User 1 enters a displayed order to buy ABC at \$10.01 for 100. User 1's order has a discretionary offset of \$0.04. User 1's order is ranked at \$10.01 and has discretion to execute up to a maximum price of \$10.05.
- User 2 enters an Enhanced RPI Order to buy ABC at \$10.00 for 100. User 2's order has a Step-Up Range instruction of \$0.04. User 2's order is ranked at \$10.00 and has the ability to step-up to a maximum price of \$10.04.
- User 3 enters a Retail Order to sell ABC at \$10.03 for 100.

User 3's Retail Order executes against User 2's Enhanced RPI Order at a price of \$10.03.

User 2's Enhanced RPI Order has a lower ranked price (\$10.00) and lower maximum price (\$10.04) as compared to User 1's displayed order (\$10.01 ranked price; discretion to execute up to a maximum price of \$10.05). User 1's displayed order also has time priority over User 2's Enhanced RPI Order as it was received by the Exchange prior to User 2's Enhanced RPI Order. However, User 2's Step-Up Range instruction has higher execution priority under proposed Rule 11.12(a)(2)(F) compared to User 1's discretionary offset, which has lower execution priority under proposed Rule 11.12(a)(2)(G). The Exchange believes that awarding priority to User 2's Enhanced RPI Order based on its Step-Up Range instruction is appropriate because User 2 is utilizing the Enhanced RPI Order with the purpose of attempting to gain queue priority in order to execute against a contra-side Retail Order (discussed *infra*). As demonstrated in the examples above, the Exchange is proposing to grant an Enhanced RPI Order the ability to gain price priority over equal-priced or better-priced resting orders on the BYX Book so long as the Enhanced RPI Order can provide price improvement over such resting orders. The Exchange believes that allowing liquidity providers to post orders outside of the range at which they are willing to execute yet

maintain the opportunity to step-up against resting orders on the same side of the BYX Book in exchange for the ability to gain price priority will incentivize these liquidity providers to provide additional liquidity on the Exchange. As a result of additional, aggressively priced liquidity submitted to the Exchange designed specifically to interact with Retail Orders, RMOs will therefore be incentivized to submit additional retail order flow to the Exchange which has the potential to interact with an Enhanced RPI Order and receive price improvement.

#### Retail Liquidity Identifier

##### *Current Behavior*

The Exchange currently disseminates an identifier pursuant to Rule 11.24(e) when RPI interest (i.e., an RPI Order or multiple RPI Orders) priced at least \$0.001 better than the Protected NBB or Protected NBO for a particular security priced at or above \$1.00 is available in the System (“Retail Liquidity Identifier” or “Identifier”). When there is RPI interest on the BYX Book that is priced at or below (above) the Protected NBB or Protected NBO, no Retail Liquidity Identifier is currently disseminated by the Exchange.<sup>74</sup> The Identifier is disseminated through consolidated data streams (i.e., pursuant to the Consolidated Tape Association Plan/Consolidated Quotation Plan, or CTA/CQ, for Tape A and Tape B securities, and the Nasdaq UTP Plan for Tape C securities) as well as through proprietary Exchange data feeds.<sup>75</sup> The Identifier reflects the symbol and the side (buy or

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<sup>74</sup> The Exchange notes that RPI Interest may not execute unless it is priced at least \$0.001 better than the Protected NBB or Protected NBO in securities priced at or above \$1.00 or priced at least \$0.0001 better than the Protected NBB or Protected NBO in securities priced below \$1.00, as proposed *supra*.

<sup>75</sup> The Exchange notes that the Retail Liquidity Identifier for Tape A and Tape B securities are disseminated pursuant to the CTA/CQ Plan. The identifier is also available through the consolidated public market data stream for Tape C securities. The processor for the Nasdaq UTP disseminates the Retail Liquidity Identifier and analogous identifiers from other market centers

sell) of the RPI interest, but does not include the price or size of the RPI Interest. In particular, CQ and UTP quoting outputs include a field for codes related to the Retail Liquidity Identifier. The codes indicate RPI interest that is priced better than the Protected NBB or Protected NBO by at least the minimum level of price improvement as required by the Program. The Exchange notes that the Identifier can shift from being disseminated to not disseminated (or vice versa) based on movement in the Protected NBB or Protected NBO without new RPI interest being entered on the Exchange. Further, the Exchange notes that as the Protected NBB and Protected NBO move, there may be instances where RPI interest is available on the Exchange but is ineligible to execute due to being priced below (above) the Protected NBB or Protected NBO.

*Proposed Behavior*

The Exchange proposes to continue to disseminate the Retail Liquidity Identifier in its current form should the Enhanced RPI Order be approved.<sup>76</sup> For Enhanced RPI Orders, the indicator will be based off of the ranked price only and the Step-Up Range instruction will not be used. A separate liquidity identifier that identifies Enhanced RPI Order interest will not be disseminated. The Exchange proposes to make clear in Rule 11.24(e) that both RPI Orders and Enhanced RPI Orders constitute RPI Interest and that the Retail Liquidity Identifier shall be disseminated when RPI Interest (as defined in proposed Rule 11.24(a)(5)) with a ranked price at least \$0.001 better than the Protected NBB or Protected NBO for a

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that operate programs similar to the RPI Program.

<sup>76</sup> The Exchange plans on submitting a letter requesting assurance from staff of the Division of Trading and Markets that it will not recommend enforcement action to the Commission pursuant to Rule 602 of Regulation NMS (the “Quote Rule”) with respect to: (1) the Exchange with respect to collecting, processing, and making available to vendors the best bid, best offer, and quotation sizes communicated by members of the Exchange, or (2) liquidity providers entering RPI Interest under the Program.

particular security is available in the System for securities priced at or above \$1.00.

Additionally, the Exchange proposes to include language in proposed Rule 11.24(e) that provides that the Retail Liquidity Identifier will not be disseminated if the Protected NBB or Protected NBO moves such that the RPI Interest is no longer priced higher than the Protected NBB or lower than the Protected NBO.

For securities priced at or above \$1.00, displaying the Retail Liquidity Identifier will provide an indication to RMOs that at least one order guaranteeing *at least* \$0.001 of price improvement is available in the System, with the opportunity of a Retail Order potentially receiving additional price improvement should the available RPI Interest be in the form of an Enhanced RPI Order. The purpose of the Identifier is to provide relevant market information to RMOs that there is available RPI Interest available on the Exchange, thereby incentivizing RMOs to send Retail Orders to the Exchange. The Exchange believes that even in instances where the Identifier is not being disseminated due to RPI Interest not having a ranked price at least \$0.001 above (below) the Protected NBB (Protected NBO), RMOs continue to be incentivized to submit Retail Orders to the Exchange. While RMOs may not be aware of potential RPI Interest on the Exchange during periods when the Identifier is not being disseminated, the Exchange does not believe that RMOs are harmed by the Exchange accepting RPI Interest that is not executable at the time of receipt by the Exchange and therefore not disseminating an Identifier. First, not all RMOs rely on the Identifier when submitting Retail Orders to the Exchange. In addition, Retail Orders may continue to be submitted even when the Identifier is not being disseminated and will continue to be eligible to execute against contra-side hidden liquidity that may be priced equal to or above (below) the Protected NBB or Protected NBO. These executions against

hidden liquidity would also include executions against Enhanced RPI Orders with a ranked price that is equal to or inferior to the Protected NBB or Protected NBO (and therefore does not trigger dissemination of the Identifier), but where the Enhanced RPI Order's Step-Up Range instruction would permit an execution at the next NBBO midpoint or next full cent better than the Retail Order's limit price, which is priced at least \$0.001 above (below) the Protected NBB (Protected NBO).

As discussed below, the Exchange proposes to expand the Program to include securities priced below \$1.00. Given that the minimum price variation ("MPV") of a sub-dollar security is \$0.0001,<sup>77</sup> the Exchange proposes in Rule 11.24(e) that the Identifier for sub-dollar securities will be displayed when there is RPI Interest with a ranked price at least \$0.0001 above (below) the Protected NBB or Protected NBO. Similarly, the Identifier for sub-dollar securities will not be displayed if there is RPI Interest on the BYX Book priced at or below (above) the Protected NBB or Protected NBO. The Exchange will continue to display the Identifier for securities priced at or above \$1.00 when there is RPI Interest with a ranked price at least \$0.001 better than the Protected NBB or Protected NBO. The Exchange will not make any other changes to the display of the Identifier from its current form for sub-dollar securities other than the minimum amount of price improvement required to display the Identifier.

#### Securities Priced Below \$1.00

Rule 11.24(h) currently limits the Program to trades occurring at prices equal to or greater than \$1.00 per share and the Exchange periodically notifies Members<sup>78</sup> regarding

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<sup>77</sup> See 17 CFR 242.612 ("Minimum pricing increment").

<sup>78</sup> See Rule 1.5(n). The term "Member" shall mean any registered broker or dealer that has been admitted to membership in the Exchange. A Member will have the status of a "member" of the Exchange as that term is defined in Section 3(a)(3) of the Act. Membership may be granted to a

securities included in the Program through an information circular.<sup>79</sup> Now, the Exchange proposes to expand the Program to all securities, including those priced below \$1.00. The rationale behind expanding the Program to all securities regardless of execution price stems from the growth of sub-dollar trading (i.e., trading at prices below \$1.00), both on- and off-exchange. As of December 2024, an analysis of SIP<sup>80</sup> data by the Exchange found that sub-dollar average daily volume has increased 564% as compared to first quarter 2019. In this period, sub-dollar on-exchange average daily volume grew from 122 million shares per day to 814 million shares per day. An analysis of SIP and FINRA Trade Reporting Facility (“TRF”),<sup>81</sup> data indicates that exchanges represented approximately 36.5% market share in sub-dollar securities, with a total of 1,286 securities trading below \$1.00. As an exchange group, Cboe had approximately 9.8% of market share of sub-dollar securities in the fourth quarter of 2024.

As trading in sub-dollar securities has grown steadily since 2020, the Exchange believes it is appropriate to expand the Program to include securities priced below \$1.00. The Exchange notes, however, that the MPV for sub-dollar securities differs from the MPV for securities priced at or above \$1.00. As provided for by Regulation NMS Rule 612, for securities priced below \$1.00, the MPV is \$0.0001, whereas for securities priced at or above \$1.00 the MPV is \$0.01.<sup>82</sup> The Exchange proposes that in order for an Enhanced RPI Order

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sole proprietor, partnership, corporation, limited liability company or other organization which is a registered broker or dealer pursuant to Section 15 of the Act, and which has been approved by the Exchange.

<sup>79</sup> Supra note 7.

<sup>80</sup> The “SIP” refers to the centralized securities information processors.

<sup>81</sup> Trade Reporting Facilities are facilities through which FINRA members report off-exchange transactions in NMS stocks, as defined in SEC Rule 600(b)(47) of Regulation NMS. See Tick Size Proposal at 80315.

<sup>82</sup> Supra note 77.

to gain queue priority ahead of resting orders on the same side of the BYX Book, the Enhanced RPI Order will be stepped-up to the nearest MPV (\$0.0001) for securities priced below \$1.00. This differs from the treatment of Enhanced RPI Orders for securities priced at or above \$1.00, which are proposed to be stepped up to the nearest half cent NBBO midpoint or full cent ahead of resting orders on the same side of the BYX Book.<sup>83</sup>

The Exchange recognizes that there is a distinction between the pricing increment in securities priced at or above \$1.00 and securities priced below \$1.00, which have a finer minimum pricing increment. As discussed, in securities priced at or above \$1.00 the Step-Up Range instruction must be able to step up to the next half cent NBBO midpoint or next full cent in order to permit an Enhanced RPI Order to have the ability to gain price priority over resting same-side orders on the BYX Book and requiring Users to have a Step-Up Range instruction priced in \$0.001 increments seeks to ensure that the purpose of Regulation NMS Rule 612 is not undermined by allowing non-displayed Step-Up Range instructions to gain price priority for a de minimis amount of price improvement. The Exchange further supports the purpose of Regulation NMS Rule 612 not only by requiring Users to submit Enhanced RPI Orders with Step-Up Range instructions priced in increments of \$0.001, but also by requiring that Step-Up Range instructions permit Enhanced RPI Orders to step up to the next NBBO midpoint or next full cent in order to potentially gain queue priority.

In securities priced below \$1.00, however, the MPV is \$0.0001 and as such, the quotations and pricing of orders tend to be in finer increments. By allowing an Enhanced RPI Order's Step-Up Range instruction in securities priced below \$1.00 to be priced in

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<sup>83</sup> Supra note 25. See also Example 13, *supra*.

increments of \$0.0001 and requiring the Step-Up Range instruction to permit the Enhanced RPI Order to step up to the next minimum pricing increment in order to gain queue priority (rather than the next half cent NBBO midpoint or next full cent as proposed for securities priced at or above \$1.00), the Exchange is seeking to stay within the bounds of Regulation NMS and encourage Users to submit competitively priced RPI Interest to the Exchange relative to the price of the security. The Exchange believes that Users are not harmed by the distinction in the minimum pricing increment for securities priced at or above \$1.00 and securities priced below \$1.00 as this distinction serves to ensure that Enhanced RPI Orders provide an adequate amount of price improvement at all price levels in exchange for queue priority.

Currently, all Regulation NMS securities traded on the Exchange priced at or above \$1.00 are eligible for inclusion in the Program. The Exchange will announce to its Members via a Trade Desk Notice that the Exchange will no longer provide periodic updates of securities included in the Program as the Program is being expanded to include all Regulation NMS securities traded on the Exchange, regardless of price.

#### Implementation

The Exchange plans to implement the proposed rule change during the second half of 2025 and will announce the implementation date via Trade Desk Notice.

#### 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.<sup>84</sup>

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<sup>84</sup>

15 U.S.C. 78f(b).

Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>85</sup> 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)<sup>86</sup> requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Commission has repeatedly emphasized that the U.S. capital markets should be structured with the interests of retail investors in mind<sup>87</sup> and has recently proposed a series of rules designed, in part, to attempt to bring order flow back to the exchanges from off-exchange trading venues.<sup>88</sup> The Exchange believes its proposed enhancements to the Program are consistent with the Commission's goal of ensuring that the equities markets continue to serve the needs of the investing public. Specifically, introducing the Enhanced RPI Order would protect investors and the public interest by providing retail investors the ability to obtain price improvement on BYX, a national securities exchange.

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<sup>85</sup> 15 U.S.C. 78f(b)(5).

<sup>86</sup> Id.

<sup>87</sup> See U.S. Securities and Exchange Commission, Strategic Plan, Fiscal Years 2018-2022, available at [https://www.sec.gov/files/SEC\\_Strategic\\_Plan\\_FY18-FY22\\_FINAL\\_0.pdf](https://www.sec.gov/files/SEC_Strategic_Plan_FY18-FY22_FINAL_0.pdf)

<sup>88</sup> Supra notes 18 – 19. See also, Securities Exchange Act Release No. 96496 (December 14, 2022), 88 FR 5440 (January 27, 2023) (“Regulation Best Execution”); Securities Exchange Act Release No. 96493 (December 14, 2022), 88 FR 3786 (January 20, 2023) (“Disclosure of Order Execution Information”).

The Exchange is committed to innovation that improves the quality of the equities markets and believes that the proposed Enhanced RPI Order may increase the attractiveness of the Exchange for the execution of Retail Orders submitted on behalf of the millions of ordinary investors that rely on these markets for their investment needs.

The Exchange believes the proposed Enhanced RPI Order promotes just and equitable principles of trade and is not unfairly discriminatory because the order type will be available for all Users, and is not limited to a certain subset of market participants. Even though Enhanced RPI Orders may be entered by any market participant, the Exchange believes that the majority of Enhanced RPI Orders will be entered by or on behalf of institutional investors that are willing to provide additional price improvement as a way to minimize their adverse selection costs.<sup>89</sup> The Exchange believes that such segmentation is consistent with section 6(b)(5) of the Act, as it does not permit *unfair* discrimination. The Commission has previously stated that the markets generally distinguish between retail investors, whose orders are considered desirable by liquidity providers because such retail investors are presumed to be less informed about short-term price movements, and professional traders, whose orders are presumed to be more informed.<sup>90</sup> The Commission has further stated that without opportunities for price improvement, retail investors may encounter wider spreads that are a consequence of liquidity providers interacting with more informed order flow.<sup>91</sup> The Exchange believes that its proposed Enhanced RPI Order is reasonably designed to attract marketable retail order flow to the exchange as it will help to ensure that retail investors benefit from the

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<sup>89</sup> Supra note 26.

<sup>90</sup> See Pilot Approval Order at 71656.

<sup>91</sup> Id.

better price that liquidity providers are willing to provide to retail orders in exchange for minimizing their adverse selection costs.

Additionally, the Exchange believes that the proposed Enhanced RPI Order type is not unfairly discriminatory to institutional investors as it rewards the User that enters the highest (for buy orders) or lowest (for sell orders) priced Enhanced RPI Order, based on a combination of the order's limit price and Step-Up Range instruction, with order book priority. Ultimately, execution priority amongst orders resting on the BYX Book will be determined by the Step-Up Range instruction entered on each Enhanced RPI Order, subject to certain limitations described above. If the Step-Up Range instruction for an Enhanced RPI Order provides a marketable, contra-side Retail Order with greater price improvement than would otherwise be available from other resting orders by stepping up to the next full cent or NBBO midpoint (for securities priced at or above \$1.00)<sup>92</sup> or the next minimum price increment (for securities priced below \$1.00), then the Enhanced RPI Order will be granted order book priority. In the event that multiple Enhanced RPI Orders are resting on the BYX Book, the Enhanced RPI Order with the Step-Up Range instruction that could result in the greatest price improvement will be given order book priority. The Exchange believes rewarding the Step-Up Range instruction that could result in the greatest possible price improvement will encourage Users to submit Enhanced RPI Orders with Step-Up Range instructions that are competitively priced in an attempt to earn queue priority in exchange for providing price improvement to Retail Orders. A higher amount of possible price improvement in exchange for queue priority ultimately benefits both retail investors, who will receive

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<sup>92</sup> Supra note 25. See also Example 13 *supra*.

price improvement over the NBBO, and the User entering the Enhanced RPI Order, who is able to execute against a marketable Retail Order to minimize its adverse selection costs and interact with retail order flow that they are currently unable to access on the Exchange given that such order flow is largely executed off-exchange.

As noted in the Exchange's initial RPI filings,<sup>93</sup> most equities exchanges, including BYX, determine priority based on a price/time/display allocation model.<sup>94</sup> This has contributed to deep and liquid markets for equity securities as liquidity providers compete to be the first to establish a particular price. While the price/time/display allocation model generally works well for institutional investors, retail investors are traditionally not able to compete with market makers and other automated liquidity providers to set an aggressive price on orders submitted to the Exchange. Importantly, retail investors, in contrast to institutional investors, tend to have longer investment time horizons, which means they are not in the business of optimizing queue placement under a time-based allocation model. Therefore, in order to facilitate the needs of retail investors, the Exchange believes an alternative approach - such as this Enhanced RPI Order proposal - would benefit the retail investor community.

As discussed earlier, the proposed introduction of the Enhanced RPI Order is designed to provide retail investors with enhanced opportunities to obtain additional price improvement by providing them with potential opportunities to execute versus non-displayed Enhanced RPI Orders that offer price improvement beyond that offered by

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<sup>93</sup> Supra notes 6 – 7.

<sup>94</sup> Nasdaq PSX, however, offers a price setter pro rata model that rewards liquidity providers that set the best price and then rewards other market participants that enter larger sized orders. See Securities Exchange Act Release No. 72250 (May 23, 2014), 79 FR 31147 (May 30, 2014) (SR-Phlx-2014-24).

resting orders on the Exchange. Marketable retail order flow is routinely executed in full on entry at the national best bid or offer or better,<sup>95</sup> but many retail liquidity programs, including the Exchange's current Program, are designed to offer at least \$0.001 of price improvement over the Protected NBB or Protected NBO to Retail Orders.<sup>96</sup> By introducing Enhanced RPI Orders, the Exchange is proposing to prioritize Enhanced RPI Orders ahead of other resting orders on the same side of the BYX Book in exchange for the Enhanced RPI Order offering price improvement to Retail Orders by stepping up to the next full cent or (for securities priced at or above \$1.00)<sup>97</sup> or the next minimum price increment (for securities priced below \$1.00). The Exchange believes the ability to post an order at a price outside of the range at which it is willing to execute with the ability to gain priority in exchange for executing at a higher (for buy orders) or lower (for sell orders) price will 1) encourage Users to submit more favorably priced Enhanced RPI Orders, and 2) attract Retail Order flow to the Exchange, both of which will benefit all investors. Increased order flow will create a deeper pool of liquidity on the Exchange, which provides for greater execution opportunities for all Users and provides for overall enhanced price discovery and price improvement opportunities on the Exchange. If successful, the proposed rule change would benefit market participants by increasing the diversity of order flow with which they can interact on a national securities exchange, thereby increasing order interaction and contributing to price formation on a regulated

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<sup>95</sup> A review of internal Exchange data found that 65.70% of Retail Orders across the Exchange and its affiliates executed at the NBBO or better in 2024. Similarly, 61.80% of retail orders across the Exchange and its affiliates executed at or better than the NBBO in 2023.

<sup>96</sup> See, e.g., IEX Rule 11.232; Nasdaq BX Rule 4780; NYSE National Rule 7.44-E; NYSE Rule 7.44.

<sup>97</sup> Supra note 25. See also Example 13, *supra*.

market. While RMOs that submit Retail Orders will benefit from increased price improvement opportunities, retail liquidity providers stand to benefit from the Exchange's proposal because by submitting Enhanced RPI Orders with higher (for buy orders) or lower (for sell orders) limit prices and Step-Up Range instructions, their Enhanced RPI Orders have the ability to gain price priority to execute against contra-side Retail Orders in exchange for offering better priced liquidity.

The Exchange also believes that retail liquidity providers that also choose to submit RPI Orders rather than Enhanced RPI Orders stand to benefit from the proposal. As noted, the Exchange believes that the increased depth and diversity of liquidity that will result from this change will increase price improvement opportunities for Retail Orders. As price competition increases, additional Retail Order flow will follow as RMOs seek out price improvement opportunities. An increase in Retail Order flow to the Exchange benefits all market participants, including retail liquidity providers who choose to submit RPI Orders rather than Enhanced RPI Orders. The Exchange notes that since a Step-Up Range instruction must enable an Enhanced RPI Order to step up to the next NBBO midpoint or next full cent in order to have the ability to earn queue priority in securities priced at or above \$1.00 (or the next minimum pricing increment in securities priced below \$1.00), there may be instances where the Step-Up Range instruction does not permit the Enhanced RPI Order to step up to the NBBO midpoint or next full cent and thus the Enhanced RPI Order cannot earn queue priority to execute against a contra-side Retail Order. In those instances, retail liquidity providers that submit RPI Orders stand to benefit as their RPI Orders may be priced better than the ranked price of the Enhanced RPI Order and other resting liquidity on the BYX Book and therefore are able

to execute against the contra-side Retail Order.

The ability to choose between an Enhanced RPI Order and an RPI Order will permit a retail liquidity provider to decide the amount of price improvement it is willing to provide in order to execute against an incoming Retail Order and decide whether providing additional price improvement only if necessary to gain queue priority is a trade-off the retail liquidity provider is willing to provide in order to earn the right to execute against a Retail Order ahead of other same-side resting orders on the BYX Book. A retail liquidity provider who submits an Enhanced RPI Order will know that the Step-Up Range instruction is utilized only if necessary to earn queue priority, giving the retail liquidity provider confidence that price improvement is being provided in order to execute against a Retail Order. On the other hand, a retail liquidity provider may decide that an RPI Order is more appropriate if the retail liquidity provider wishes to retain the ability to execute only against a Retail Order, but does not want to commit to stepping up to the next NBBO midpoint or next full cent and is willing to wait for an execution rather than provide price improvement to earn queue priority. The Exchange believes its proposal to provide retail liquidity providers the option to prioritize queue priority in exchange for additional price improvement in order to execute against retail order flow through the use of an Enhanced RPI Order in addition to continuing to offer an RPI Order provides an appropriate balance to retail liquidity providers who desire to execute against retail order flow but do not want to commit to the additional potential price improvement required to utilize the Step-Up Range instruction in order to gain queue priority.

Giving queue priority to certain order types is not a novel concept in the securities markets. In fact, on the Exchange's affiliate, Cboe EDGX Exchange, Inc. ("EDGX"), the

displayed portion of Retail Priority Orders are given allocation priority ahead of all other available interest on the EDGX Book (“EDGX Retail Priority”).<sup>98</sup> The Commission found that EDGX Retail Priority represented a reasonable effort to enhance the ability of bona fide retail trading interest to compete for executions with orders entered by other market participants that may be better equipped to optimize their place in the intermarket queue.<sup>99</sup> The Exchange believes that granting queue priority to an Enhanced RPI Order as discussed in the Purpose section similarly reflects a reasonable effort by the Exchange to create additional price improvement opportunities for retail investors, as has been the standard identified by the Commission in several approval orders written in regards to RLPs.<sup>100</sup> While the Exchange is not proposing to prioritize Retail Orders as EDGX has done, it is proposing to prioritize Enhanced RPI Orders that provide price improvement and may only interact with contra-side Retail Orders. The Exchange’s proposal to prohibit RPI Orders and Enhanced RPI Orders from executing with contra-side Type 2-designated Retail Orders when the RPI Order or Enhanced RPI Order is not priced better than the Protected NBB or Protected NBO similarly reflects an attempt to create additional price improvement opportunities for retail investors by making RPI Orders and Enhanced RPI Orders ineligible from executing when these orders are not providing price improvement to contra-side Type 2-designated Retail Orders. While the Exchange is forgoing an execution at a marketable price in situations where an RPI Order or

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<sup>98</sup> See EDGX Rule 11.9(a)(2)(A).

<sup>99</sup> See Securities Exchange Act Release No. 87200 (October 2, 2019), 84 FR 53788 (October 8, 2019), SR-CboeEDGX-2019-012 (“EDGX Retail Priority Approval Order”).

<sup>100</sup> Supra note 9. See also Securities Exchange Act Release No. 67347 (July 3, 2012), 77 FR 40673 (July 10, 2012) (SR-NYSE-2011-55; SR-NYSEAmex-2011-84) (“RLP Approval Order”) at 40679.

Enhanced RPI Order is priced equal to the Protected NBB or Protected NBO and there is resting contra-side Type 2 Order interest available, the Exchange believes that limiting RPI Order and Enhanced RPI Order executions to situations where price improvement is offered properly reflects the main purpose of the RPI Order and Enhanced RPI Order – that is, to create additional price improvement opportunities for retail investors.

The Exchange believes that the prioritization of Enhanced RPI Orders that offer price improvement over other resting orders on the same side of the BYX Book promotes just and equitable principles of trade and is consistent with Section 6(b)(5) of the Act as it encourages Users to submit Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions in exchange for queue priority ahead of all resting orders on the same side of the BYX Book so long as price improvement is provided to a contra-side Retail Order. The Exchange proposes to provide queue priority for Enhanced RPI Orders over all other types of orders and is not limiting queue priority to a certain subset of order types. As previously stated, all Users are eligible to submit Enhanced RPI Orders. And while the Exchange believes that most Enhanced RPI Orders will be submitted by or on behalf of professional traders, retail investors will have the opportunity to receive better-priced executions should their executing broker choose to submit a marketable Retail Order to the Exchange. The Exchange believes the introduction of Enhanced RPI Orders will deepen the Exchange's pool of available liquidity, increase marketable retail order flow to the Exchange and provide additional competition for marketable retail order flow, most of which is currently executed off-exchange in the OTC markets. Promoting competition for retail order flow among execution venues stands to benefit retail investors, who may be eligible

to receive greater price improvement on the Exchange by interacting with an Enhanced RPI Order than they would if their order was internalized by a broker-dealer on the OTC market. Additionally, retail liquidity providers will benefit from submitting Enhanced RPI Orders and Step-Up Range instructions with competitive prices. By providing Enhanced RPI Orders and Step-Up Range instructions with competitive prices, retail liquidity providers are, in essence, improving the quality of order flow available for contra-side Retail Orders and increasing the odds of their Enhanced RPI Orders executing with desirable retail order flow rather than informed order flow or not executing at all.

Furthermore, the Exchange believes that its proposal to limit the use of the Step-Up Range instruction to determine order book priority is consistent with Section 6(b)(5) of the Act because the use of the Step-Up Range instruction rather than limit price to determine order priority is limited to the following: 1) the Step-Up Range instruction is needed to gain priority over a resting order with higher order book priority; 2) in situations where i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the Enhanced RPI Order's ranked price and all other resting liquidity in the same security and ii) the Enhanced RPI Order's Step-Up Range instruction is priced equal to or higher (lower) than the Retail Order's limit price; and 3) to determine order book priority when multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of higher priority orders. The primary use case of the Enhanced RPI Order identified in the first scenario listed above is to provide price improvement to marketable retail order flow. As previously discussed in the Statutory Basis section, the Exchange believes allowing the use of a Step-Up Range instruction in order to provide an additional, higher (for buy orders) or lower (for sell orders) price at which an Enhanced

RPI Order may execute is essential in order to deepen the pool of liquidity available to retail investors. In exchange for providing orders with high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions, these liquidity providers will be rewarded with executions against marketable retail order flow, which is generally preferred over more informed order flow. Liquidity providers that choose to submit Enhanced RPI Orders with competitively priced limit prices and/or Step-Up Range instructions stand to benefit in that their orders are positioned to possibly gain price priority over same-side, resting orders on the BYX Book and execute against preferred retail order flow rather than forego an execution by submitting orders that do not contain high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions. Retail investors, on the other hand, will receive price improvement should their order execute against an Enhanced RPI Order. Increased opportunities for price improvement stand to make the Exchange a more attractive venue for RMOs to submit Retail Orders, thus encouraging RMOs to bring retail order flow back to a regulated, lit market rather than executing off-exchange.

In the situation where i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the Enhanced RPI Order's limit price and all other resting liquidity in the same security and ii) the Enhanced RPI Order's Step-Up Range instruction is priced equal to or higher (lower) than the limit price of the Retail Order, the Exchange believes using the Step-Up Range instruction to determine order priority promotes just and equitable principles of trade because it rewards the Enhanced RPI Order with the highest (lowest) Step-Up Range instruction rather than forego an execution due to the limit price of all orders resting on the BYX Book being ineligible to

trade with the contra-side Retail Order. The intent of the Enhanced RPI Order is to reward those Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions with queue priority while simultaneously providing price improvement to Retail Orders. The Exchange believes that determining order priority using the Step-Up Range instruction in this limited situation is aligned with the intent of liquidity providers that choose to submit Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions and also emphasizes a benefit of using the Enhanced RPI Order – the ability to enter an order at a lower (for buy orders) or higher (for sell orders) price but also provide a Step-Up Range instruction within which the liquidity provider is willing to execute in order to execute against retail order flow rather than forego an execution and remain on the BYX Book. The Exchange seeks to encourage liquidity providers to submit order flow designed to interact with marketable retail order flow in an effort to increase the amount of Retail Order executions occurring on-exchange. By rewarding Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions in situations where the order would otherwise not execute, the Exchange believes its pool of liquidity available to marketable retail order flow will deepen, thus incentivizing RMOs to submit additional marketable retail order flow to the Exchange.

Likewise, using the Step-Up Range instruction rather than the limit price of an Enhanced RPI Order in situations where multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of higher priority orders promotes the use of the Enhanced RPI Order type as the Exchange seeks to encourage RMOs to submit

marketable Retail Orders to the Exchange. Determining order priority of Enhanced Orders based on their Step-Up Range instruction over the limit price of all other higher priority orders rewards the Enhanced RPI Order that provides the highest (for buy orders) or lowest (for sell orders) Step-Up Range instruction. The Exchange believes that using the Step-Up Range instruction rather than the limit price in situations where there are multiple Enhanced RPI Orders will encourage Users to submit Enhanced RPI Orders containing high (for buy orders) or low (for sell orders) limit prices and/or Step-Up Range instructions to the Exchange, as they will be given priority to interact with more desirable marketable retail order flow based on their Step-Up Range instruction. Additionally, the Exchange believes that RMOs will be encouraged to direct marketable retail order flow to the Exchange knowing that the *worst* price they will receive is \$0.001 better than the Protected NBB or Protected NBO for securities priced at or above \$1.00<sup>101</sup> and there is potential to receive a greater amount of price improvement should an Enhanced RPI Order be present on the opposite side of the BYX Book.<sup>102</sup>

Even in the limited situation where the ranked price of an Enhanced RPI Order is utilized to determine the queue priority of Enhanced RPI Orders (i.e., where multiple Enhanced RPI Orders are resting on the BYX Book and there is no other same-side resting liquidity on the BYX Book with higher priority and an incoming contra-side Retail Order to sell (buy) is priced lower (higher) than the ranked price of the resting Enhanced RPI Orders' ranked prices), Retail Orders stand to benefit. Users submitting Enhanced RPI Orders to the Exchange do so with the intent of interacting with contra-

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<sup>101</sup> For securities priced below \$1.00, the minimum amount of price improvement as compared to the Protected NBB or Protected NBO is \$0.0001.

<sup>102</sup> Supra note 25. See also Example 13, *supra*.

side Retail Orders and as such, are encouraged to submit Enhanced RPI Orders with competitive limit prices, in addition to their Step-Up Range instructions, in an attempt to gain price priority in order to execute against Retail Orders. The Exchange does not view Enhanced RPI Orders as discouraging Users from submitting RPI Orders or devaluing RPI Orders but rather believes that Enhanced RPI Orders are a way to encourage competition from retail liquidity providers as they seek to minimize adverse selection costs and interact with incoming contra-side Retail Orders. With Users contending for executions against incoming retail liquidity, Users submitting Enhanced RPI Orders and RPI Orders naturally would be expected to utilize competitive prices in order to put themselves in the best position to execute against retail liquidity rather than submit orders with prices that are not positioned to potentially execute.

Additionally, the Exchange believes that its proposal to amend its current Rule 11.12 in order to provide that the Step-Up Range instruction has priority over both the discretionary portion of a Discretionary Order and a Supplemental Peg Order is consistent with Rule 6(b)(5) of the Act because Users choosing to submit Enhanced RPI Orders containing Step-Up Range instructions do so with the intent to earn queue priority over other same-side resting orders on the BYX Book in order to execute against a contra-side Retail Order. In this sense, the Step-Up Range instruction being utilized is dependent on other same-side orders that are resting on the BYX Book and the User does not have control over whether the Step-Up Range instruction is utilized or at what price an execution may occur. While the User does not have control over the utilization of the Step-Up Range instruction, the User does control the maximum (minimum) price at which the Step-Up Range is entered, and chooses this price knowing that the execution will occur against a contra-side

Retail Order.

In contrast, the discretionary portion of a Discretionary Order is wholly dependent upon the price of the incoming contra-side order rather than dependent on same-side resting orders on the BYX Book. A Discretionary Order will only utilize the discretionary portion of its order to execute against an incoming contra-side order if there are no other orders with higher priority resting on the BYX Book. Given that the User submitting an Enhanced RPI Order with a Step-Up Range instruction is utilizing the Step-Up Range instruction in order to have the ability to gain queue priority to execute against an incoming contra-side Retail Order while the User of a Discretionary Order is not submitting its order with the intent to gain priority, the Exchange believes that it is appropriate to rank the Step-Up Range instruction ahead of the discretionary portion of a Discretionary Order in proposed Rule 11.12(a)(2).

An analysis of internal Exchange data found that the current Program provided approximately \$1.6 million in price improvement to retail investors during calendar year 2024,<sup>103</sup> which is a decrease from the \$4.5 million provided to retail investors between the two and a half year period between January 2016 and June 2018.<sup>104</sup> In fact, the average amount of price improvement per month provided to retail investors in 2024 was approximately \$133,333 while between 2016 – 2018 the average amount of price improvement provided to retail investors was \$150,000 per month. It is reasonable to believe that the proposed Enhanced RPI Order, by virtue of providing at least \$0.001 of price improvement and requiring the Step-Up Range instruction to be able to step up to

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<sup>103</sup> Source: Cboe internal data.

<sup>104</sup> See RPI Approval Order at 53184.

the next half cent NBBO midpoint or next full cent in exchange for execution priority in securities priced at or above \$1.00 (for securities priced below \$1.00 the Enhanced RPI Order must provide at least \$0.0001 of price improvement and requiring the Step-Up Range instruction to step up to the next minimum pricing increment), would add to the Exchange's ability to provide price improvement to retail investors. The Exchange does not believe that offering additional price improvement to retail investors through Enhanced RPI Orders would cause harm to the broader market. On the contrary, the Exchange believes that rewarding Enhanced RPI Orders with order book priority in exchange for price improvement would further the Commission's goal of providing additional opportunities for retail investors to interact directly with a large volume of individual investor orders.

The Exchange created the Enhanced RPI Order with the goal of encouraging liquidity providers to submit orders eligible to interact with marketable retail order flow with the competition from these liquidity providers resulting in a reasonable alternative for marketable retail order flow to receive executions at a price better than the Protected NBBO. As the Commission noted in its Order Competition Rule proposal, over 90% of marketable NMS retail stock orders are routed to wholesalers where the orders are not exposed to order-by-order competition.<sup>105</sup> While wholesalers generally achieve price improvement relative to the NBBO, the Commission has indicated that exchanges often have liquidity available at the NBBO midpoint, which would be a more favorable price than a retail order receives when executed by a wholesaler.<sup>106</sup> As discussed, the

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<sup>105</sup> Supra note 18 at 178.

<sup>106</sup> Id.

Exchange has attempted to encourage Retail Orders to execute on-exchange through its current Program, with limited success.<sup>107</sup> Here, the Exchange is proposing price improvement of at least \$0.001 in securities priced at or above \$1.00 (\$0.0001 in securities priced below \$1.00) as well as requiring the Step-Up Range instruction to step up to the next NBBO midpoint or next full cent in securities priced at or above \$1.00 (or step up to the next minimum pricing increment in securities priced below \$1.00). The Exchange believes that the proposal's two-pronged approach of requiring the ability to step up to the next NBBO midpoint or next full cent will in addition to a minimum pricing increment of \$0.001 (\$0.0001) will result in an increase in price improvement provided to Retail Orders, which in turn will result in an increase in order flow to the Exchange. Increased order flow benefits all market participants by deepening the Exchange's pool of liquidity, which the Exchange believes would further the Commission's goal of "increasing competition and enhancing the direct exposure of individual investor orders to a broader spectrum of market participants" as set forth in section 11A of the Exchange Act.<sup>108</sup>

In addition to the proposed introduction of the Enhanced RPI Order, the Exchange also believes that expanding the Program to include securities priced below \$1.00 is consistent with Section 6(b)(5) of the Act because it promotes just and equitable principles of trade by allowing liquidity providers to submit orders designed to interact with retail order flow in all securities, rather than only in securities priced at or above

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<sup>107</sup> As discussed in the Purpose section, Retail Orders on BYX received an average of \$0.0013 of price improvement from RPI Orders during calendar year 2024 but received an average of \$0.0033 of price improvement from all hidden liquidity (inclusive of RPI Orders) on BYX during calendar year 2024.

<sup>108</sup> Supra note 18 at 178.

\$1.00. As stated above, a significant majority of the increased volume in sub-dollar securities comes from executions occurring off-exchange.<sup>109</sup> By permitting the Exchange to expand its Program to include securities priced below \$1.00, the Exchange would be a more attractive venue for liquidity providers seeking to interact with retail order flow, which furthers the Commission's goal of bringing retail order executions back on-exchange. Further, the proposal to expand the Program to include securities priced below \$1.00 is not unfairly discriminatory because all Users will be able to submit RPI Orders or Enhanced RPI Orders at prices below \$1.00. As noted above, the Exchange, along with its affiliates, maintained a market share of 9.8% in sub-dollar securities during the fourth quarter of 2024.<sup>110</sup> The Exchange believes that its expansion of the Program to include sub-dollar securities would lead to more liquidity providers submitting order flow to the Exchange in an attempt to execute against Retail Orders. In turn, RMOs would submit additional Retail Order flow to the Exchange to interact with RPI Orders and Enhanced RPI Orders as there would be additional opportunities for price improvement in sub-dollar securities.

The proposal removes impediments to and perfect the mechanism of a free and open market and a national market system and protects investors and the public interest by allowing executions in Retail Orders priced below \$1.00 to receive price improvement by executing against RPI Orders or Enhanced RPI Orders, which are currently only available at prices at or above \$1.00. In addition to the changes described above, the Exchange believes that the changes to certain existing rule text within Rule 11.24 is

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<sup>109</sup> See "How Subdollar Securities are Trading Now" (March 16, 2023). Available at: <https://www.cboe.com/insights/posts/how-subdollar-securities-are-trading-now/>.

<sup>110</sup> Id.

consistent with Section 6(b)(5) of the Act because it provides additional certainty as to how Rule 11.24 is to be applied. The proposed revised definition of RPI Interest in Rule 11.24(a)(5) is necessary in order to capture the proposed Enhanced RPI Order type, in addition to the existing RPI Order. Additionally, amending Rule 11.24(e) and Rule 11.24(f)(1) – (2) to reflect the changes made in Rule 11.24(a)(5) is necessary in order to ensure that RPI Interest is properly defined throughout Rule 11.24. The deletion of Rule 11.24(h) is consistent with the Exchange’s proposal to expand the Program to securities priced below \$1.00 and the deletion of Rule 11.24(i) is appropriate as it is inapplicable to Retail Orders on the Exchange and was inadvertently added to the rule text. The proposed changes to Rule 11.24(a)(2) are intended to insert a reference to Rule 11.9(b)(1) describing Immediate or Cancel Orders and introduce the ability for Users to submit Retail Orders as Mid-Point Peg Orders, both of which changes serve to provide additional guidance to Users of Retail Orders about the order modifiers permitted by the Exchange. The Exchange believes these changes are intended to facilitate usage of RPI Interest and serve to ensure that Rule 11.24 is properly describing order behavior after the proposed introduction of the Enhanced RPI Order and proposed expansion of the Program to securities priced below \$1.00.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange believes that the proposal does not impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act. Rather, the proposed rule change is designed to increase intramarket competition for retail order flow by introducing a new order type that is designed to

provide price improvement to Retail Orders in exchange for the ability to gain price priority over resting orders on the same side of the BYX Book. The proposal, which seeks to provide an innovative form of price improvement to Retail Orders through the creation of the Enhanced RPI Order, represents an effort by the Exchange to encourage on-exchange liquidity and incentivize the trading of Retail Orders on a national securities exchange.

The Exchange also believes the proposed rule change does not impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the Act. As discussed above, IEX, NYSE, NYSE National, and Nasdaq BX each operate RLPs and the Exchange believes that its proposed rule change will allow it to compete for additional retail order flow with the aforementioned exchanges.<sup>111</sup> Furthermore, the Exchange's proposal will promote competition between the Exchange and off-exchange trading venues where the majority of retail order flow trades today. The proposed Enhanced RPI Order is designed to foster innovation within the market and increase the quality of the national market system by allowing national securities exchanges to compete both with each other and with off-exchange venues for order flow. Expanding the program to include securities priced below \$1.00 similarly would not impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the Act. The Exchange's proposal is designed to increase competition for trading in all securities, including but not limited to securities priced below \$1.00. Given the growth of trading in sub-dollar securities since 2020, the Exchange believes that expanding the Program to include sub-dollar securities will make the Program an attractive option for

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<sup>111</sup> Supra note 96.

retail investors seeking to trade in lower-priced securities, and as such is a competitive measure designed to compete directly with other exchanges for order flow.

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**

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the Exchange consents, the Commission will:

- A. by order approve or disapprove such proposed rule change, or
- B. institute proceedings to determine whether the proposed rule change should be disapproved.

**IV. Solicitation of Comments**

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

Electronic Comments:

- Use the Commission's internet comment form (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include file number SR-CboeBYX-2025-007 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-CboeBYX-2025-007. 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-CboeBYX-2025-007 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to  
delegated authority.<sup>112</sup>

**Sherry R. Haywood,**

*Assistant Secretary.*

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<sup>112</sup> 17 CFR 200.30-3(a)(12).

## EXHIBIT 5

(additions are underlined; deletions are [bracketed])

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Rules of Cboe BYX Exchange, Inc.

\* \* \* \* \*

Rule 11.12. Priority of Orders

(a) *Ranking.* Orders of Users shall be ranked and maintained in the BYX Book based on the following priority:

(1) No change.

(2) Time. Subject to the execution process described in Rule 11.13(a) below, where orders to buy (or sell) are made at the same price, the order clearly established as the first entered into the System at such particular price shall have precedence at that price, up to the number of shares of stock specified in the order. The System shall ranked equally priced trading interest within the System in time priority in the following order:

(A) – (E) No change.

(F) [Discretionary portion of Discretionary Orders as set forth in Rule 11.9(c)(9)]The Step-Up Range instruction of an Enhanced RPI Order as set forth in Rule 11.24;

(G) [Supplemental Peg Orders.]Discretionary portion of Discretionary Orders as set forth in Rule 11.9(c)(10);

(H) Supplemental Peg Orders.

\* \* \* \* \*

Rule 11.24. Retail Price Improvement Program

(a) *Definitions.*

(1) No change.

(2) Retail Order. A “Retail Order” is an agency order or riskless principal order that meets the criteria of FINRA Rule 5320.03 that originates from a natural person and is submitted to the Exchange by a Retail Member [o]Organization, provided that no change is made to the terms of the order with respect to price or side of market and the order does not originate from a trading algorithm or any other computerized methodology. A Retail Order is an Immediate or Cancel (“IOC”) Order (as described in Rule 11.9(b)(1)) and shall operate in

accordance with paragraph (f) below. A Retail Order may be an odd lot, round lot, or mixed lot, and may include a Mid-Point Peg Order instruction.

(3) Retail Price Improvement Order. A “Retail Price Improvement Order” or “RPI Order” consists of non-displayed interest on the Exchange [that is priced better than the Protected NBB or Protected NBO by at least \$0.001 and ]that is identified as such.[ The System will monitor whether RPI buy or sell interest, adjusted by any offset and subject to the ceiling or floor price, is eligible to interact with incoming Retail Orders. An RPI Order remains non-displayed in its entirety (the buy or sell interest, the offset, and the ceiling or floor). An RPI Order may also be entered in a sub-penny increment with an explicit limit price. Any User is permitted, but not required, to submit RPI Orders. An RPI Order may be an odd lot, round lot or mixed lot.] An RPI Order for a security priced at or above \$1.00 must be priced at least \$0.001 better than the Protected NBB or Protected NBO and may be priced in \$0.001 increments (e.g., \$10.001). An RPI Order for securities priced below \$1.00 must be priced at least \$0.0001 better than the Protected NBB or Protected NBO and may be priced in \$0.0001 increments (e.g., \$0.5001). An RPI Order is ineligible to execute at prices equal to or inferior to the Protected NBB (for buy orders) or Protected NBO (for sell orders), however an RPI Order may be entered with a limit price that is equal to or inferior to the Protected NBB or Protected NBO. An RPI Order that is ineligible to execute because it is priced equal to or inferior to the Protected NBB or Protected NBO will not be canceled and will become eligible to execute against Retail Orders should the RPI Order become priced better than the Protected NBB (for buy orders) or Protected NBO (for sell orders) at a later time.

An RPI Order may be entered as a limit order, in a sub-penny increment with an explicit limit price, or as a Primary Pegged Order (as defined in Rule 11.9(c)(8)(A)) with a positive offset (for buy orders) or a negative offset (for sell orders). An RPI Order that is also a Primary Pegged Order (“RPI Primary Pegged Order”) must be entered with a positive (for buy order) or negative (for sell orders) offset (“Offset Amount”). The ranked price of an RPI Primary Pegged Order is the price that results after the application of the Offset Amount, as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). An RPI Primary Pegged Order priced at or above \$1.00 may have its Offset Amount entered in pricing increments of \$0.001. An RPI Primary Pegged Order priced below \$1.00 may have its Offset Amount entered in pricing increments of \$0.0001. The System will monitor whether RPI Orders, adjusted by any Offset Amount and subject to the limit price, are eligible to interact with incoming Retail Orders. An RPI Order remains non-displayed in its entirety including any applicable Offset Amount and the limit price). An RPI Order may also be entered in a sub-penny increment with an explicit limit price. Any User is permitted, but not required, to submit RPI Orders. An RPI Order may be an odd lot, round lot or mixed lot. An RPI Order shall have priority as described in Rule 11.24(g).

(4) Enhanced Retail Price Improvement Order. An Enhanced Retail Price Improvement Order is an RPI Order that is designated with a Step-Up Range instruction. A Step-Up Range instruction is an optional, non-displayed instruction that is added to (for buy orders) or subtracted from (for sell orders) the ranked price of an RPI Order and provides a maximum execution price (for buy orders) or minimum execution price (for sell orders) at

which a User is willing to execute against contra-side Retail Orders. The Step-Up Range instruction may be priced in increments of \$0.001 for securities priced at or above \$1.00 and securities priced below \$1.00.

An Enhanced RPI Order may be entered as a limit order, in a sub-penny increment with an explicit limit price, or as a Primary Pegged Order (as defined in Rule 11.9(c)(8)(A)) with an Offset Amount. An Enhanced RPI Order that is a limit order is ranked at its limit price and not the price inclusive of its Step-Up Range instruction.

An Enhanced RPI Order that is also a Primary Pegged Order (“Enhanced RPI Primary Pegged Order”) must be entered with an Offset Amount and will have its ranked price determined after the application of the Offset Amount, as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). The Step-Up Range instruction of an Enhanced RPI Primary Pegged Order will be applied to the resulting ranked price following the application of the Offset Amount and may cause the Enhanced RPI Primary Pegged Order to execute at a price that is higher (for buy orders) or lower (for sell orders) than its limit price. An Enhanced RPI Primary Pegged Order priced at or above \$1.00 may have its Offset Amount entered in pricing increments of \$0.001. An Enhanced RPI Primary Pegged Order priced below \$1.00 may have its Offset Amount entered in pricing increments of \$0.0001.

The System will monitor whether an Enhanced RPI Order, adjusted by any applicable Offset Amount, the order’s Step-Up Range instruction, and the order’s limit price, is eligible to interact with incoming Retail Orders. An Enhanced RPI Order (including any applicable Offset Amount, the Step-Up Range instruction, and the limit price) remains non-displayed in its entirety. Any User is permitted, but not required, to submit an Enhanced RPI Order. An Enhanced RPI Order may be an odd lot, round lot or mixed lot. An Enhanced RPI Order shall have priority as described in Rule 11.24(g). An Enhanced RPI Order is ineligible to execute at prices equal to or inferior to the Protected NBB (for buy orders) or Protected NBO (for sell orders), however an Enhanced RPI Order may be entered with a limit price that is equal to or inferior to the Protected NBB or Protected NBO. An Enhanced RPI Order that is ineligible to execute because it is priced equal to or inferior to the Protected NBB (for buy orders) or Protected NBO (for sell orders) will not be canceled and will become eligible to execute against Retail Orders should the Enhanced RPI Order become executable at a later time.

(5) RPI Interest. RPI Interest means an order submitted to the Exchange that is designated as either an RPI Order or an Enhanced RPI Order.

(b) – (d) No change.

(e) *Retail Liquidity Identifier.* For securities priced at or above \$1.00, a[A]n identifier shall be disseminated through proprietary data feeds or as appropriate through the Consolidated Quotation System, when RPI [i]Interest with a ranked price[d ]at least \$0.001 better than the Protected NBB or Protected NBO for a particular security, is available in the System (“Retail Liquidity Identifier”). The Retail Liquidity Identifier shall reflect the symbol for the particular security and the

side (buy or sell) of the RPI [i]Interest, but shall not include the ranked price or size of the RPI [i]Interest. For securities priced below \$1.00, the Retail Liquidity Identifier shall be disseminated through the proprietary data feeds or as appropriate through the Consolidated Quotation System, when RPI Interest with a ranked price at least \$0.0001 better than the Protected NBB or Protected NBO for a particular security, is available in the System. For all securities, the Retail Liquidity Identifier will only be disseminated when RPI Interest is priced better than the Protected NBB or Protected NBO and will not disseminate if the price of the Protected NBB or Protected NBO moves such that the RPI Interest is no longer priced higher than the Protected NBB or lower than the Protected NBO.

(f) *Retail Order Designation.* A Retail Member Organization can designate how a Retail Order will interact with available contra-side interest as follows:

(1) Type 1. A Type 1-designated Retail Order will interact with available contra-side RPI [Orders]Interest and other price improving contra-side interest but will not interact with other available contra-side interest in the System that is not offering price improvement or route to other markets. The portion of a Type 1-designated Retail Order that does not execute against contra-side RPI [Orders]Interest or other price improving liquidity will be immediately and automatically cancelled.

(2) Type 2. A Type 2-designated Retail Order will interact first with available contra-side RPI [Orders]Interest and other price improving liquidity and then any remaining portion of the Retail Order will be executed as an IOC Order pursuant to Rule 11.9(b)(1). Any remaining portion of a Type 2-designated Retail Order will be ineligible to execute with resting RPI Interest that is not priced better than the Protected NBB or Protected NBO. A Type 2-designated Retail Order can either be submitted as a BYX Only Order or as an order eligible for routing pursuant to Rule 11.13(a)(2).

(g) *Order Priority[ and Order Allocation]*

RPI [Orders]Interest and other Non-Displayed Orders in the same security shall be ranked [and allocated ]according to price then time of entry into the System[s], as provided for in Rule 11.12[.]Executions shall occur in price/time priority in accordance with Rule 11.12 and also as described below in Rule 11.24(g), as applicable. Any remaining unexecuted RPI [i]Interest will remain available to interact with other incoming Retail Orders. [Any remaining unexecuted portion of the Retail Order will cancel or execute in accordance with paragraph (f) above.]RPI Interest is ineligible to execute at prices that are equal to or inferior to the Protected NBB or Protected NBO. RPI Interest that is priced equal to or inferior to the Protected NBB or Protected NBO will not be cancelled and will become eligible to execute against Retail Orders should the RPI Interest become priced better than the Protected NBB or Protected NBO at a later time.

[Examples of priority and order allocation are as follows:

Protected NBBO for security ABC is \$10.00 – \$10.05

User 1 enters an RPI Order to buy ABC at \$10.015 for 500

User 2 then enters an RPI Order to buy ABC at \$10.02 for 500

User 3 then enters an RPI Order to buy ABC at \$10.035 for 500

An incoming Retail Order to sell ABC for 1,000 executes first against User 3's bid for 500 at \$10.035, because it is the best priced bid, then against User 2's bid for 500 at \$10.02, because it is the next best priced bid. User 1 is not filled because the entire size of the Retail Order to sell 1,000 is depleted. The Retail Order executes against RPI Orders in price/time priority.

However, assume the same facts above, except that User 2's RPI Order to buy ABC at \$10.020 is for 100. The incoming Retail Order to sell 1,000 executes first against User 3's bid for 500 at \$10.035, because it is the best priced bid, then against User 2's bid for 100 at \$10.02, because it is the next best priced bid. User 1 then receives an execution for 400 of its bid for 500 at \$10.015, at which point the entire size of the Retail Order to sell 1,000 is depleted.

As a final example, assume the same facts as above, except that User 3's order was not an RPI Order to buy ABC at \$10.035, but rather, a Non-Displayed Order to buy ABC at \$10.03. The result would be similar to the result immediately above, in that the incoming Retail Order to sell 1,000 executes first against User 3's bid for 500 at \$10.03, because it is the best priced bid, then against User 2's bid for 100 at \$10.02, because it is the next priced bid. User 1 then receives an execution for 400 of its bid for 500 at \$10.015, at which point the entire size of the Retail Order to sell 1,000 is depleted.]

Enhanced RPI Orders have the ability to gain execution priority over resting same-side orders on the BYX Book with higher price/time priority in the same security in accordance with paragraphs (1) – (3) below.

(1) Utilization of Step-Up Range Instruction to Determine Execution Price and Priority. The System will use the Step-Up Range instruction of an Enhanced RPI Order to determine at what price an Enhanced RPI Order must execute versus a Retail Order in order to gain price priority over resting same-side orders on the BYX Book with higher price/time priority in the same security. As discussed in paragraphs (A) – (C) below, the System will use the Step-Up Range instruction to grant price priority over resting same-side orders on the BYX Book with higher price/time priority in the same security:

(A) When an Enhanced RPI Order's Step-Up Range instruction is needed to gain priority over resting same-side orders (excluding resting Enhanced RPI Orders) on the BYX Book with higher price/time priority in the same security. As described in paragraph (2) below, for securities priced at or above \$1.00, an Enhanced RPI Order will gain priority if it can execute at a price within its Step-Up Range instruction that improves upon the price of a resting same-side order on the BYX Book with higher price/time priority in the same security that is priced better than the Protected NBB or NBO by stepping up (for buy orders) or down (for sell orders) to the closer of the NBBO midpoint or next full-cent price. For securities priced below \$1.00, an Enhanced RPI Order will gain priority by stepping up (for buy orders) or down (for sell orders) to the next minimum price increment that is priced better than a resting same-side order on the BYX Book with higher price/time priority in the same

security as described in paragraph (3) below. For an Enhanced RPI Primary Pegged Order, the Offset Amount is applied as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A) and the Step-Up Range instruction applied to the resulting ranked price after application of the Offset Amount. In these scenarios, for Enhanced RPI Orders priced at or above \$1.00 an Enhanced RPI Order will execute versus a Retail Order at the NBBO midpoint or the next full cent or, for securities priced below \$1.00, at the next minimum pricing increment, as described in paragraphs (2) and (3) below.

(B) In situations where (i) a contra-side Retail Order to sell (buy) is entered at a higher (lower) price than the ranked price (i.e., its limit price) of the Enhanced RPI Order and all other resting liquidity on the BYX Book and (ii) the price of the Enhanced RPI Order following application of the Step-Up Range instruction is priced equal to or higher (lower) than the Retail Order's limit price. In this scenario, an Enhanced RPI Order will execute versus a Retail Order at the Retail Order's limit price. This situation is also applicable to an Enhanced RPI Primary Pegged Order. To determine the ranked price of an Enhanced RPI Primary Pegged Order, the Enhanced RPI Primary Pegged Order's Offset Amount is applied as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A). The Step-Up Range instruction is then applied to the resulting ranked price after application of the Offset Amount, resulting in the maximum (minimum) price the Enhanced RPI Primary Pegged Order is willing to buy (sell) a security; and

(C) To determine price priority when multiple Enhanced RPI Orders are resting on the BYX Book and are eligible to trade ahead of resting same-side orders on the BYX Book with higher price/time priority that are not Enhanced RPI Orders. Here, priority will be given to the Enhanced RPI Order with the Step-Up Range instruction that could result in the highest (for an Enhanced RPI Order to buy) or lowest (for an Enhanced RPI Order to sell) possible execution price for the contra-side Retail Order, even if the resulting execution does not occur at the highest (lowest) maximum execution price that is permitted by the Step-Up Range instruction. The actual execution price provided to the Retail Order will be the price the Enhanced RPI Order needs to step-up to as described in (A) and (B) above.

(i) In the event that there are multiple Enhanced RPI Orders resting on the BYX Book and there is no other resting same-side liquidity with higher priority, and an incoming contra-side Retail Order to sell (buy) is priced lower (higher) than the ranked prices of the resting Enhanced RPI Orders, execution priority will be determined by the higher ranked price and not the Step-Up Range instructions of the Enhanced RPI Orders. An Enhanced RPI Primary Pegged Order will have its priority determined by the ranked price that results after application of the Offset Amount as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A) and will not include the Step-Up Range instruction. The Enhanced RPI Orders will execute pursuant to Rule 11.12 in standard price/time priority according to their limit prices or, in the case of Enhanced RPI Primary Pegged Orders, the resulting ranked prices after application of the applicable Offset Amount as described in Rule 11.9(c)(8) and Rule 11.9(c)(8)(A).

(2) *Securities Priced at or Above \$1.00.* Enhanced RPI Orders shall gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security if the Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order, as provided for in paragraph (g)(1)(A) – (C), than would be provided by the resting same-side order on the BYX Book. In order to gain priority over resting same-side orders on the BYX Book with higher price/time priority in the same security, an Enhanced RPI Order must be able to step up to the next valid tick increment. As described below, there are certain scenarios where an Enhanced RPI Order may only need to provide a half cent of price improvement or less in order to gain priority over resting same-side orders on the BYX Book with higher price/time priority:

(A) If the NBBO midpoint is priced in a half-cent increment (e.g., \$10.005) and the best-priced resting order on the BYX Book is ranked at the NBBO midpoint (e.g., \$10.005), the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the next full cent above (for buy orders) or below (for sell orders) the NBBO midpoint;

(B) If the NBBO midpoint is priced in a half-cent increment (e.g., \$10.005) and the best-priced resting order on the BYX Book to buy (sell) is ranked at the full cent below (above) the NBBO midpoint (e.g., \$10.00 or \$10.01), the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the NBBO midpoint; or

(C) In the event that an RPI Order priced in an \$0.001 increment is resting on the BYX Book, the Enhanced RPI Order's Step-Up Range instruction must permit the Enhanced RPI Order to step up to the closer of the NBBO midpoint or the next full cent above (for buy orders) or below (for sell orders) the NBBO midpoint.

Enhanced RPI Orders in securities priced at or above \$1.00 may include a Step-Up Range instruction priced in \$0.001 increments, but these orders shall not gain priority over other same-side resting orders on the BYX Book if the Step-Up Range instruction is unable to step up to the NBBO midpoint or next full cent. Step-Up Range instructions priced in increments finer than \$0.01 will be capped at the maximum executable price based on a valid tick increment or midpoint and will not be executable at the maximum price of the Step-Up Range instruction. The Step-Up Range instruction of an Enhanced RPI Order shall be ranked in accordance with Rule 11.12(a)(2)(F) and shall have priority over the discretionary offset of a Discretionary Order.

If there are no resting Enhanced RPI Orders on the BYX Book that are able to provide a greater amount of price improvement than other resting same-side orders on the BYX Book with higher price/time priority in the same security, then an incoming Retail Order may execute against resting same-side orders on the BYX Book in price/time priority in accordance with Rule 11.12. Any remaining unexecuted portion of the Retail Order will cancel or execute in accordance with paragraph (f) above.

(3) *Securities Priced Below \$1.00.* For securities priced below \$1.00, Enhanced RPI Orders shall be granted price priority over other resting same-side orders on the BYX

Book if the Enhanced RPI Order's Step-Up Range instruction is able to provide a greater amount of price improvement to an incoming contra-side Retail Order by stepping up to the next minimum price increment. The System will not support fractional penny quotations or executions priced in \$0.00001 increments and finer in securities priced below \$1.00. Quotations and executions priced in increments up to \$0.0001 are supported by the System.

[(h) The Program will be limited to trades occurring at prices equal to or greater than \$1.00 per share. The Exchange will periodically notify the membership regarding the securities included in the Program through an information circular.

(i) *Attribution.* A Retail Member Organization may designate a Retail Order to be identified as Retail on the proprietary data feeds under Rule 11.22 either on an order-by-order basis or on a port-by-port basis.]