SECURITIES AND EXCHANGE COMMISSION (Release No. 34-71655; File No. SR-NYSEMKT-2014-17)

March 5, 2014

Self-Regulatory Organizations; NYSE MKT LLC; Notice of Filing of Proposed Rule Change Adopting Rule 971.1NY for An Electronic Price Improvement Auction for Single-Leg Orders

Pursuant to Section 19(b)(1)<sup>1</sup> of the Securities Exchange Act of 1934 (the "Act")<sup>2</sup> and Rule 19b-4 thereunder,<sup>3</sup> notice is hereby given that, on February 21, 2014, NYSE MKT LLC (the "Exchange" or "NYSE MKT") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. <u>Self-Regulatory Organization's Statement of the Terms of the Substance of the Proposed</u>
<u>Rule Change</u>

The Exchange proposes to adopt Rule 971.1NY for an electronic price improvement auction for single-leg orders. The text of the proposed rule change is available on the Exchange's website at <a href="www.nyse.com">www.nyse.com</a>, at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change</u>

In its filing with the Commission, the self-regulatory organization 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 those statements may be examined at the places

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

<sup>&</sup>lt;sup>2</sup> 15 U.S.C. 78a.

<sup>&</sup>lt;sup>3</sup> 17 CFR 240.19b-4.

specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

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

#### 1. Purpose

The Exchange proposes to adopt new Rule 971.1NY that sets forth an electronic crossing mechanism with a price improvement auction on the Exchange to be referred to as the CUBE Auction, which stands for Customer Best Execution. Proposed Rule 971.1NY provides for a CUBE Auction for single-leg orders. The CUBE Auction may also be referred to herein simply as the Auction. The Exchange notes that the CUBE Auction, as proposed, would operate in a manner consistent with – but not identical to – the operation of electronic price improvement auctions available on other options markets.<sup>4</sup>

As proposed, the CUBE Auction would be available to ATP Holders both on and off the Trading Floor of the Exchange, subject to the requirements of Section 11(a) of the Act (discussed below). In addition to the CUBE Auction, Floor-based ATP Holders may continue to use existing Floor-based crossing rules.

#### **CUBE Overview**

As described below, the CUBE Auction is designed to work seamlessly with the Exchange's Consolidated Book, which is the Exchange's single electronic order book where all

See Chicago Board Options Exchange, Inc. ("CBOE") Rule 6.74A – Automated Improvement Mechanism ("AIM"); NASDAQ OMX PHLX, INC. ("PHLX") Rule 1080 - Price Improvement XL ("PIXL"); BOX Options Exchange LLC ("BOX") Rule 7150 -Price Improvement Period ("PIP"); International Securities Exchange ("ISE") Rule 723 -Price Improvement Mechanism ("PIM"). In general, the AIM, PIXL, PIP and PIM have features similar to those proposed in the Auction including: (a) providing the opportunity for price improvement; (b) delineating an exposure period for original agency order; (c) setting guidelines for the types of orders eligible for participation; and (d) setting allocation rules for orders considered by the mechanism.

quotes and limit orders sent to the Exchange are placed and reside as a file on the NYSE Amex System. Under proposed Rule 971.1NY(a), an ATP Holder may seek to guarantee the execution of a limit order it represents as agent on behalf of a public customer, broker dealer, or any other entity via the CUBE Auction. As proposed, this agency order would be referred to as the CUBE Order. The ATP Holder that submits the CUBE Order (the "Initiating Participant") would agree to guarantee the execution of the CUBE Order by submitting a contra-side order ("Contra Order") representing principal interest or interest it has solicited to trade with the CUBE Order at a specified price ("single stop price") or by utilizing auto-match or auto-match limit features as described in proposed Rule 971.1NY(c)(1). The Initiating Participant's manner of guaranteeing the CUBE Order and the price(s) at which the CUBE Order is stopped would not be displayed.

Although the Contra Order would guarantee the CUBE Order an execution, the purpose of the Auction is to provide the opportunity for price improvement for the CUBE Order as well as the opportunity for other market participants to interact with the CUBE Order. Accordingly, the Exchange will notify market participants when an Auction is occurring so that they may have an opportunity to participate. And as discussed in more detail below, if, during an Auction, the Exchange receives quotes or orders that are marketable, the Auction will conclude and those marketable orders or quotes would have an opportunity to interact with interest in the Auction and then will continue with regular order processing, without delay. So from the perspective of ATP Holders entering orders or quotes, the fact that an Auction may be occurring will not impact their order or quote processing, other than the possibility of additional trading opportunities by virtue of trading with interest that is designated for the Auction.

## Criteria for Starting a CUBE Auction

As set forth in proposed Rule 971.1(a), an Auction begins with an "initiating price," which for a CUBE Order to buy (sell) shall be the lower (higher) of the CUBE Order's limit price or the National Best Offer ("NBO") (National Best Bid) ("NBB"), except as provided for in paragraph (b)(1)(B) of the proposed Rule (discussed below). For example, if both National Best Bid or Offer ("NBBO") or Exchange Best Bid or Offer ("BBO") are \$2.00 x \$2.05, and there is no Customer interest in the BBO, a CUBE Order to buy 60 contracts with a limit price of \$2.06 would have an initiating price of \$2.05 (the NBO). <sup>5</sup> However, if the limit price of the CUBE Order to buy were \$2.04, the initiating price would be \$2.04 (the CUBE Order to buy's limit price is lower than the NBO). The initiating price of the CUBE Order, as well as the Contra Order and any responsive GTX Orders (discussed below) may be priced in \$0.01 increments, regardless of the Minimum Price Variation ("MPV") applicable to the series. 6 For example, in a series with a \$0.05 MPV, if a CUBE Order to buy 10 contracts with a limit price of \$2.05 is entered when both the NBBO and BBO throughout the Auction are \$2.00 x \$2.05, with no Customer interest in the BBO, the initiating price could be \$2.04 if the Contra Order guarantees the execution of the CUBE Order with a single stop price at or below \$2.04 or utilizes automatch or auto-match limit (discussed below). At the conclusion of the CUBE Auction, the

See proposed Rule 971.1NY (b)(1). For purposes of this Rule, the term "Customer" shall have the definition set forth in Rule 900.2NY(18). As proposed in amended Rule 900.2NY(18A), for purposes of the proposed CUBE Auction, Professional Customers as defined in that Rule shall be treated as broker dealers. Treatment of Professional Customers as broker dealers for purposes of the CUBE Auction is consistent with the approved rules of the CBOE. See CBOE Rule 1.1(ggg). The Exchange notes that it also proposes to make a technical, non-substantive amendment to Rule 900.2NY(18A) to delete the cross reference to Rule 963.1NY, which was deleted when the Exchange revised various rules relating to Complex Order trading (see Securities Exchange Act Release No. 64558 (Dec. 16, 2010), 75 FR 80552 (Dec. 22, 2010).

See proposed Rule 971.1NY(b)(7).

CUBE Order may execute at multiple prices within a permissible range but would always execute at the best-priced interest in the Auction.

Proposed Rule 971.1NY(b) sets forth the eligibility requirements for initiating a CUBE Auction. As proposed, the time at which the Auction is initiated would be considered the time of execution for the CUBE Order, and therefore even though the execution will print after the Auction has completed, the Exchange acknowledges that the Auction would qualify as an exception to the general prohibition against Trade-Throughs, pursuant to Rule 991NY(b)(9). Similarly, because the Auction has a maximum duration of 750 milliseconds (as discussed below), the Auction also qualifies as an exception to Trade-Through Liability to the extent that the NBBO may improve during the Auction, pursuant to Rule 991NY(b)(5).8 The Exchange notes that the proposed Auction is consistent with how the electronic price improvement auctions of other markets operate.<sup>9</sup>

As stated above, pursuant to proposed Rule 971.1NY(a), an Auction begins with an "initiating price," which for a CUBE Order to buy (sell) shall be the lower (higher) of the CUBE Order's limit price or the NBO (NBB), except as provided for in paragraph (b)(1)(B) of the proposed Rule (discussed below). And, at the conclusion of the CUBE Auction, the CUBE Order may execute at multiple prices within a permissible range.

See Rule 991NY(b)(9) (Order Protection, Exceptions to Trade-Through Liability) ("The transaction that constituted the Trade-Through was the execution of an order that was stopped at a price that did not Trade-Through an Eligible Exchange at the time of the stop").

See Rule 991NY(b)(5) (Order Protection, Exceptions to Trade-Through Liability) ("The Eligible Exchange displaying the Protected Quotation that was traded through had displayed, within one second prior to execution of the Trade-Through, a Best bid or Best offer, as applicable, for the options series with a price that was equal or inferior to the price of the Trade-Through transaction").

See, e.g., CBOE Rule 6.74A; PHLX Rule 1080; BOX Rule 7150; ISE Rule 723.

To assure that a CUBE Auction does not result in a Trade-Through of the NBBO or execute ahead of Customer interest with priority that may be present in the Consolidated Book at the initiation of an Auction, the Exchange proposes that a CUBE Auction have a defined range of permissible executions that are based on a snapshot of the market at the initiation of the Auction. This range of permissible executions may change, however, if the BBO on the same side as the CUBE Order updates during the Auction, as provided in proposed paragraph (b)(1)(C) (discussed below).

As set forth in proposed Rule 971.1NY(b)(1), a CUBE Order to buy (sell) would generally have a proposed permissible range of executions with an upper (lower) bound equal to the initiating price and the lower (upper) bound equal to the NBB (NBO). However, pursuant to proposed paragraphs (b)(1)(A) and (b)(1)(B), the Exchange proposes tighter ranges of executions for when there is Customer interest in the BBO for orders of 50 contracts or more or for when there are orders for fewer than 50 contracts, which is consistent with how electronic price improvement auctions of other markets operate.<sup>10</sup>

First, pursuant to proposed Rule 971.1NY(b)(1)(A), if the CUBE Order to buy (sell) is for 50 contracts or more and there is Customer interest in the Consolidated Book at the Exchange Best Bid ("BB") (Exchange Best Offer ("BO")), the lower (upper) bound of executions shall be the higher (lower) of the BB plus one cent (BO minus one cent) or the NBB (NBO). The Exchange believes that this is appropriate to assure that any Customer interest at the BB (BO) retains priority at that price. Second, pursuant to proposed Rule 971.1NY(b)(1)(B), if the CUBE Order to buy (sell) is for fewer than 50 contracts, the initiating price shall be the lower (higher)

<sup>10 &</sup>lt;u>See, e.g.</u>, CBOE Rule 6.74A(a)(3).

The Auction is similar to CBOE Rule 6.74A(a)(2) and ISE Rule 723(b)(1), to the extent that it has an upper bound of permissible executions, whereas the CBOE and ISE Rules cited have a lower bound.

of the CUBE Order's limit price, the NBO (NBB), or the BO minus one cent (BB plus one cent) and the lower (upper) bound of executions shall be the higher (lower) of the NBB (NBO) or the BB plus one cent (BO minus one cent). Consistent with rules of other exchanges, and as discussed in further detail below, the Exchange proposes paragraph (b)(1)(B) of the proposed Rule be adopted on a pilot basis.

The following examples show the initiating price and the permissible range of executions for various potential CUBE Orders, pursuant to proposed paragraphs (b)(1)(A) and (b)(1)(B) of Rule 971.1NY.

## Examples of CUBE Orders subject to proposed Rule 971.1(NY)(b)(1)(A)

## Example #1 (Customer interest on BB):

 $NBBO = $2.00 \times $2.05$ 

BBO= \$2.00 x 2.05, Customer interest \$2.00 bid

CUBE Order \$2.05 bid for 60 contracts

Initiating Price is \$2.05. Permissible range of execution: \$2.01 to \$2.05

## Example #2 (Customer interest on BB):

 $NBBO = \$2.00 \times \$2.05$ 

BBO= \$2.00 x 2.05, Customer interest \$2.00 bid

CUBE Order \$2.03 bid for 60 contracts

Initiating Price is \$2.03. Permissible range of execution: \$2.01 to \$2.03

#### Examples of CUBE Orders subject to proposed Rule 971.1(NY)(b)(1)(B)

## Example #3 (No Customer interest on BB):

The Auction is consistent with CBOE 6.74A(a)(3), to the extent that it has an upper bound of permissible executions.

See, e.g., CBOE Rule 6.74A Interpretation and Policies .03; PHLX Rule 1080(n)(vii); ISE Rule 723 Supplementary Material .03; BOX IM-7150-1.

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 $NBBO = $2.00 \times $2.05$ 

 $BBO = $2.00 \times 2.05$ 

CUBE Order \$2.05 bid for 10 contracts

Initiating Price is \$2.04. Permissible range of execution: \$2.01 to \$2.04

Example #4 (No Customer interest on BB):

 $NBBO = $2.00 \times $2.05$ 

BBO= \$1.95 x 2.10

CUBE Order \$2.05 bid for 10 contracts

Initiating Price is \$2.05. Permissible range of execution: \$2.00 to \$2.05

Pursuant to proposed Rule 971.1NY(b)(1)(C), if the BBO on the same side as the CUBE Order updates during the Auction, the range of permissible executions will adjust in accordance with the updated BBO, unless the Auction concludes early pursuant to paragraph (c)(4)(D) (as discussed below). The Exchange believes that this practice of honoring the updated BBO would help ensure a fair and orderly market by maintaining the priority of quotes and orders on the Consolidated Book as they update.

Example #4a (With No Customer interest on BBO):

 $NBBO = $1.00 \times $1.20$ 

BBO=  $1.00 \times 1.20$ 

CUBE Order \$1.10 bid for 100 contracts

Initiating Price is \$1.10. Permissible range of execution: \$1.00 to \$1.10

BB updates during Auction to \$1.04 (No Customer interest in BB); Updated permissible range of executions: \$1.04-\$1.10<sup>14</sup>

## Example #4b (With Customer interest in the updated BBO):

 $NBBO = \$1.00 \times \$1.20$ 

 $BBO = $1.00 \times $1.20$ 

CUBE Order \$1.10 bid for 100 contracts

Initiating Price is \$1.10. Permissible range of execution: \$1.00 to \$1.10 BB updates during Auction to \$1.04 (Customer interest in BB); Updated

permissible range of executions: \$1.05-\$1.10 (BB plus one penny)

To mitigate the risk of advancing too far through the Consolidated Book during periods of increased volatility or reduced liquidity, the Exchange utilizes price protection mechanisms, including Trade Collar Protection, as defined in Rule 967NY(a). A Marketable Order held at a Trading Collar represents interest that is eligible to trade at a specific price, even though that price is not displayed, and therefore must be taken into consideration when determining the range of permissible executions. Thus, if, at the time a CUBE Order is submitted, there are orders subject to Trade Collar Protection, i.e., collared orders, the range of permissible executions for the CUBE Order will be narrowed to ensure the priority of the collared order(s). Specifically, pursuant to proposed Rule 971.1NY(b)(1)(D), if at the time the Auction is initiated,

The update to the BB in this example would not cause an early conclusion of the Auction because the updated BB does not improve the initiating price. <u>See, e.g.</u>, proposed Rule 971.1NY(c)(4)(D).

See Rule 967NY(a)(1) ("The Exchange will not immediately execute (i) incoming Market Orders or marketable Limit Orders ('Marketable Orders') if the width of the NBBO is greater than one Trading Collar, as defined in paragraph (a)(2) below or, (ii) the balance of an incoming Marketable Order to buy (sell) that would execute at a price that exceeds the [NBO] ([NBB]) plus (minus) the value of one Trading Collar."). See also Rule 967NY(a)(4)(A) ("An incoming Marketable Order to buy (sell) will be displayed at a price equal to the NBB (NBO) plus (minus) one Trading Collar (the 'collared order')").

there is a Marketable Order to sell (buy) that has been displayed pursuant to Rule 967NY(a)(4)(A), the displayed price of the collared order minus (plus) one Trading Collar would be considered the BO (BB) when determining the range of permissible executions. <sup>16</sup> For example, if the NBBO and BBO at the beginning of an Auction for a CUBE Order to buy 60 contracts is \$1.00 x \$2.00, and the \$2.00 BO is a marketable sell order (non-Customer) that has been displayed pursuant to Rule 967NY(a), the upper bound of the range of executions would be the price at which the Marketable Order would be eligible to trade, which in this example, would be \$1.75. Accordingly, the permissible range of executions for this CUBE Order to buy would be \$1.00 x \$1.75. The inclusion of collared orders when determining the range of permissible executions will help ensure a fair and orderly market by maintaining the priority of orders and quotes on the Consolidated Book, while still affording the opportunity for price improvement on each Auction commenced on the Exchange.

Paragraphs (b)(2)-(9) of proposed Rule 971.1NY set forth the various reasons that a proposed CUBE Order would be rejected – and deemed ineligible to commence an Auction.

First, pursuant to proposed Rule 971.1NY(b)(2), a CUBE Order to buy (sell) with a limit price below (above) the lower (upper) bound of the permissible range of executions specified in paragraph (b)(1) of the proposed Rule would not be eligible to initiate an Auction and would be rejected along with the Contra Order. For example, if both the NBBO and the BBO were \$2.00 x \$2.05 and there is a proposed CUBE Order to buy for \$1.99 for 60 contracts, this CUBE Order would be rejected because the limit price is below the lower bound of permissible executions,

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See Rule 967NY(a)(2) ("A 'Trading Collar' shall be determined by the Exchange on a class-by-class basis and, unless announced otherwise via Trader Update, shall be the same value as the bid-ask differential guidelines established pursuant to Rule 925NY(b)(4). To preserve a fair and orderly market, the Exchange may, with the approval of two Trading Officials, grant intra-day relief to widen or narrow the Trading Collar for one or more option series").

which here would have been \$2.00. The Exchange believes that it is appropriate to reject CUBE Orders to buy (sell) that are priced below (above) the lower (upper) bound because they are not the best-priced interest available and should not trade ahead of better-priced interest on the same side of the market.

Consistent with proposed Rule 971.1NY(b)(2), a CUBE Order to buy would be rejected if its limit price were below the lower bound of the permissible range of executions that has been calculated based on the presence of a marketable buy order subject to Rule 967NY(a). For example, if the NBBO and BBO at the beginning of an Auction for a CUBE Order to buy 60 contracts is \$1.00 x \$2.00, and the \$1.00 BB represents a marketable buy order that has been displayed pursuant to Rule 967NY(a), a CUBE Order to buy with an initiating price of \$1.15 will be rejected because it falls below the lower bound of permissible executions, which here would have been \$1.25 (the BB plus one trading collar of \$0.25).

Pursuant to proposed paragraph (b)(3), a CUBE Order, once accepted, will never execute outside the range of permissible executions and will never trade through its own limit price or the price of an unrelated quote or order. For example, if during the Auction, the NBB, but not BB, improved (to a price better than the CUBE Order to buy) and an unrelated order that was marketable against the updated NBB caused the Auction to conclude early, per proposed paragraph (c)(4) of this Rule (as discussed below), the CUBE Order would not trade through its own limit price to trade at the price of the updated NBB. Likewise, although the Auction would have concluded early, the incoming marketable sell order would not participate in the Auction and therefore would not trade through the updated NBB price. As discussed above, the CUBE Auction ignores updates to the NBBO during the Auction, per Rule 991NY(b)(5). Thus, as discussed below, the CUBE Order would trade with any interest received during the Auction, or

if no interest was received during the Auction, with the Contra Order, at prices equal to or at prices that improved the CUBE Order's limit price.

The following are additional reasons that a proposed CUBE Order would be deemed ineligible to commence an Auction and therefore rejected, as set forth in proposed Rule 971.1NY(b)(4)-(6) and (b)(9).

- 1. CUBE Orders submitted before the opening of trading would not be eligible to initiate an Auction and would be rejected, along with the Contra Order. Because a CUBE Order is deemed executed at the time of entry, any CUBE Orders entered before the opening of trading would not be able to execute, and therefore the Exchange believes it would be appropriate to reject these CUBE Orders.
- 2. CUBE Orders submitted during the final second of the trading session in the affected series would not be eligible to initiate an Auction and would be rejected, along with the Contra Order. As discussed below, the length of the Auction would be at least 500 milliseconds and the Exchange believes it would be appropriate to reject CUBE Orders submitted during the final second of the trading session to assure that the processing of a CUBE Order may be complete
- 3. CUBE Orders for fewer than 50 contracts submitted when the BBO is \$0.01 wide would likewise be rejected. For example, if both the NBBO and BBO were \$2.00 x \$2.01, and Customer interest may or may not be part of the BBO, a CUBE Order to buy 10 contracts for \$2.01 would reject, because the market is only \$0.01 wide. The Exchange believes it is

appropriate to reject CUBE Orders in this scenario because these CUBE Orders would not be able to meet the permissible range of executions as specified in proposed Rule 971.1NY(b)(1).

4. CUBE Orders submitted when the NBBO is crossed would result in the CUBE Order being rejected. The Exchange believes that this is appropriate because the Exchange would not be able to determine a permissible range of executions if the NBBO is crossed.

The Exchange proposes that CUBE Orders may be entered in \$.01 increments regardless of the MPV of the series involved. <sup>17</sup> To assure that the CUBE Order can receive price improvement, the Exchange also proposes that Contra Orders may be priced in one cent increments when specifying the stop price or the auto-match limit price pursuant to paragraphs (c)(1)(A) and (c)(1)(C) of the proposed Rule. 18 This practice is consistent with the rules of other exchanges operating electronic price improvement auctions. <sup>19</sup> In addition, the Exchange proposes that the minimum size requirement for a CUBE Order is one contract, which, as discussed below, would be adopted on a pilot basis.<sup>20</sup>

The Exchange believes that the above-described restrictions and requirements would ensure that the existing priority and display rules for the Consolidated Book<sup>21</sup> are preserved, while still providing ATP Holders an opportunity to guarantee either price improvement, more liquidity beyond the displayed size, or both, for orders they represent as agent.

Id.

<sup>17</sup> See proposed Rule 971.1NY(b)(7).

<sup>18</sup> 

<sup>19</sup> See, e.g., ISE Rule 723(b)(2).

<sup>20</sup> See proposed Rule 971.1NY(b)(8).

<sup>21</sup> See Rule 964NY.

## **CUBE Auction Process: Initiation of Auction**

Proposed Rule 971.1NY(c) sets forth the Auction process. As described in more detail below, once initiated, a CUBE Auction is announced via a broadcast message, known as a Request For Response ("RFR"), and market participants indicate their interest in the Auction by submitting acceptable RFR Responses. To initiate a CUBE Auction, pursuant to proposed Rule 971.1NY(c)(1), the Initiating Participant can elect one of three ways in which it would guarantee the execution of a CUBE Order – a single stop price, "auto-match", or "auto-match limit", which is consistent with the rules of other options exchanges that offer electronic price improvement auctions. The Exchange believes that these three options afford the Initiating Participant flexibility and control over the price(s) at which it would be willing to guarantee the execution of a CUBE Order.

First, pursuant to proposed Rule 971.1NY(c)(1)(A), the Initiating Participant can elect to specify a single stop price at which it would participate in the Auction. If elected, under this option, the Initiating Participant will only participate in the Auction at a single price, regardless of the prices of other responses to the Auction. For a CUBE Order to buy (sell), an Initiating Participant may specify a single stop price that is at or below (above) the initiating price of the Auction. A stop price specified for a CUBE Order to buy (sell) that is below (above) the lower (upper) bound of the range of permissible executions will be repriced to the lower (upper) bound (the best-priced interest). In this instance, the stop price is below the lower bound of permissible execution prices, and thus the execution can be priced back to within the permissible execution range. However, a stop price specified for a CUBE Order to buy (sell) that is above (below) the initiating price is not eligible to initiate an Auction because it would be priced higher – and

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See, e.g., CBOE Rule 6.74A(b)(1)(A).

therefore at a worse price – than pre-existing trading interest and both the CUBE Order and the Contra Order would be rejected. In this instance, the stop price is inferior to the pre-existing trading interest, and thus it would not result in an execution within the permissible range. The following example shows the impact of various single stop prices on a CUBE Order.

## Example of Single Stop Price, per proposed Rule 971.1(NY)(c)(1)(A)

Example #5 (No Customer interest on BB):

 $NBBO = $2.00 \times $2.05$ 

BBO = \$2.00 x \$2.05

CUBE Order \$2.06 bid for 60 contracts

Initiating Price is \$2.05. Permissible Range of Executions is \$2.00 - \$2.05

Stop price \$2.06 and above = CUBE Order and Contra Order rejected (because

exceeds the initiating price)

Stop Price \$2.00 - \$2.05 = CUBE Order and Contra Order accepted

Stop Price \$1.99 and below = CUBE Order accepted, Contra Order repriced to

\$2.00

Rather than opt for a single stop price, an Initiating Participant may, pursuant to proposed Rule 971.1NY(c)(1)(B), elect the "auto-match" option, which would automatically match both the price and size of all RFR Responses. Accordingly, the Initiating Participant may receive executions at multiple prices. Where the auto-match option is selected for a CUBE Order to buy (sell), the Initiating Participant would automatically match as principal or as agent on behalf of a Contra Order the price and size of all RFR Responses that are lower (higher) than the initiating price and within the range of permissible executions. For example, if both the NBBO and the BBO were \$2.00 x \$2.05 and the CUBE Order is to buy for \$2.06 for 60 contracts, with no

Customer interest at the BBO, and the RFR Responses are to sell 10 contracts at \$2.01, and 10 contacts at \$2.02, then the Contra Order would auto-match these Responses by likewise selling 10 contracts to the CUBE Order at \$2.01, and 10 contracts at \$2.02. Thus, a total of 20 contracts would be sold to the CUBE Order at \$2.01 and 20 contracts would be sold at \$2.02. The remaining 20 contracts in the CUBE Order would trade against the Contra Order at \$2.05 (the initiating price/the NBO), assuming no other RFR Responses were received. If, in the preceding example, the CUBE Order limit price was instead \$2.03 (not \$2.06), the initiating price would be \$2.03 (lower than the NBO at \$2.05) and the CUBE Order would execute against the Responses and the Contra Order in exactly the same manner (i.e., a total of 20 contracts at \$2.01 and 20 contracts at \$2.02); however, the remaining 20 contracts would trade against the Contra Order at \$2.03 limit price.

Finally, pursuant to proposed Rule 971.1NY(c)(1)(C), ATP Holders may guarantee the execution of a CUBE Order by electing the "auto-match limit" option, which would automatically match the price and size of all RFR Responses at each price to match the trading interest up or down to the limit price specified, referred to as the "auto-match limit price." Thus, for a CUBE Order to buy (sell), the Initiating Participant would automatically match, as principal or as agent on behalf of a Contra Order, the price and size of RFR Responses that are lower (higher) than the initiating price down (up) to the auto-match limit price. Assume, for example, that both the NBBO and the BBO were \$2.00 x \$2.05 and the CUBE Order is to buy for \$2.06 for 60 contracts, with no Customer interest at the BBO, and the Contra Order selects an automatch limit price of \$2.03. If the RFR Responses are to sell at or between \$2.00 and \$2.02, the CUBE Order would execute with those better-priced RFR Responses, but the Contra Order

In this example, the initiating price is \$2.05 and the permissible range of executions is \$2.00 - \$2.05.

would not. Instead, the Contra Order would only match those RFR Responses, if any, priced \$2.03 or higher.

Once a CUBE Order has been submitted for processing, the CUBE Order (as well as the Contra Order) may not be cancelled or modified.<sup>24</sup> This is consistent with the rules of other options exchanges that operate electronic price improvement auctions.<sup>25</sup> The Exchange believes that this requirement reduces the potential for misuse of the Auction by ATP Holders that are not legitimately interested in making a bona fide trade in the Auction.

### **CUBE Auction Process: RFRs, Response Time Interval and Responses**

As noted above, upon receipt of a valid CUBE Order, the Exchange would announce the Auction by disseminating an RFR to all participants who subscribe to Auction messages over ArcaBook for options.<sup>26</sup> The RFR would identify the following characteristics of a CUBE Order: the series, the side of the market, the size, and the initiating price, which is consistent with the practice of other options exchanges.<sup>27</sup> The Exchange believes that including this level of detail in each RFR may lead to better prices for the CUBE Order.

After the RFR is disseminated, the Exchange would begin a random timer for the duration of the Auction, referred to as the Response Time Interval, which would last between 500 and 750 milliseconds. As proposed, the length of the Response Time Interval would be

See, e.g., CBOE Rule 6.74A(b); ISE Rule 723(b)(3); ISE Rule 723 Supplementary Material .04.

See proposed Rule 971.1NY(c).

ArcaBook is a proprietary data feed offered by the Exchange and available to anyone (including all ATP Holders) by subscription. The RFRs for CUBE Auctions would be included in the options data feed at no incremental cost to the ArcaBook subscriber. Thus, any subscriber that opts to receive the options data, including any ATP Holder subscriber, has the ability to enter an order in response to those RFRs (<u>i.e.</u>, the election to receive RFRs would not be on a case-by-case basis).

<sup>&</sup>lt;sup>27</sup> See, e.g., CBOE Rule 6.74A(b)(1)(B); ISE Rule 723(c).

determined by the CUBE Auction mechanism following the receipt of a valid CUBE Order and contemporaneously with the dissemination of the RFR. The Exchange believes that the use of an undisclosed random Response Time Interval of between 500 and 750 milliseconds would provide the CUBE Auction with a functional difference to distinguish it from similar price improvement mechanisms offered by other exchanges.<sup>28</sup> The Exchange believes that the length of time allotted on the proposed Auction timer would provide ATP Holders with sufficient time to submit RFR Responses and would encourage competition among participants, thereby enhancing the potential for price improvement for the CUBE Order.<sup>29</sup>

During the Response Time Interval, any ATP Holder may respond to the RFR, either as principal or as agent on behalf of customers, provided such response is properly marked specifying price, size, and side of the market (each, an "RFR Response" or "Response").

The Exchange proposes to add the "GTX Order," which is a non-routable order with a time-in-force contingency for the Response Time Interval, and thus would be considered an RFR Response. As an RFR Response, the GTX Order must specify price, size, and side of the market. As proposed in Rule 971.1NY(c)(2)(C)(i):

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<sup>28 &</sup>lt;u>See, e.g.,</u> CBOE Rule 6.74A(b)(2)(A); PHLX Rule 1080(n)(ii)(B)(1); ISE Rule 723(c)(5)(I).

In December 2013, to determine whether the proposed Auction timer would provide sufficient time to respond to an RFR, the Exchange asked ATP Holders that both subscribe to ArcaBook and act as Market Makers on the Exchange (the "Relevant ATP Holders") whether their firms "could respond to an Auction with a random duration of 500 – 750 milliseconds." Of the 21 Relevant ATP Holders that responded to the question, 100% (n=21) indicated that their firm could respond in this time frame. Thus, the Exchange believes that the proposed Auction duration of at least 500 milliseconds, which is the mid-range of approved mechanisms at other market centers, would provide a meaningful opportunity for participants on NYSE Amex to respond to an Auction while at the same time facilitating the prompt execution of orders.

- GTX Orders would not be displayed to the Consolidated Book or disseminated to any participants, <u>i.e.</u>, not sent to OPRA as these orders would only interact with liquidity available during the Auction;
- Any portion of a GTX Order that is not executed in the CUBE Auction
  would be cancelled at the conclusion of the Auction because a GTX order
  would only interact with liquidity available during the Auction including
  any unrelated order that is marketable against a GTX Order that causes the
  early conclusion of the Auction per paragraph (c)(4) of this Rule;
- The minimum price increment for a GTX Order would be one cent,
   regardless of the MPV for the series involved in the Auction, to maximize
   opportunities for price improvement in the Auction;
- GTX Orders with a size greater than the CUBE Order, would be capped at
  the size of the CUBE Order, to enable interaction with the CUBE Order
  and to discourage manipulation of the Auction process;
- GTX Orders may be cancelled, which would afford ATP Holders opting to utilize this order type additional flexibility and control; and
- GTX Orders on the same side of the market as the CUBE Order will be rejected. Because GTX Orders can only trade against a CUBE Order or an unrelated order on the same side as a CUBE Order, same-side GTX Orders are unnecessary to the CUBE Auction process. Therefore, the Exchange proposes that same-side GTX Responses will be rejected.

- Rejecting same-side GTX Orders is consistent with the processing of same-side RFR Responses to the Exchange's Complex Order Auction.<sup>30</sup>
- For a CUBE Order to buy (sell), GTX Orders priced below (above) the lower (upper) bound of executions shall be repriced to the lower (upper) bound of executions, as specified in proposed paragraph (b)(1) of this Rule. For example, assuming the facts of Example 4a above, if before the BB is updated to \$1.04, the Exchange receives a GTX Order to sell priced at \$1.02, because the new lower bound is \$1.04, that GTX Order would be repriced to \$1.04. The Exchange believes that this practice will ensure that GTX Orders eligible to participate in the Auction will not be excluded if they are priced more aggressively than the lower (upper) bound of execution.

The Exchange believes that adding the GTX Order, which is good only for the duration of the Auction, would encourage participation in the Auction and would further enhance the opportunity for price improvement on the CUBE Order. The Exchange notes that the electronic price improvement auctions of other markets similarly utilize non-displayed trade interest in response to those auctions to enable market participants to enter non-displayed interest that would only participate in the auction. This type of non-displayed interest generally operates in the same manner as the Exchange's proposed GTX Order.<sup>31</sup>

The CUBE Auction would also consider any other unrelated orders and quotes

("unrelated orders") received during an Auction that are priced within the permissible range of

<sup>30 &</sup>lt;u>See</u> Rule 980NY(e)(4).

See, e.g., CBOE Rule 6.74A(b)(1) (non-displayed interest intended only for the auction may be cancelled); ISE Rule 723(c)(3) (non-displayed interest intended only for the auction may be modified, but not cancelled).

executions as eligible to participate in the Auction. Because such unrelated orders would be eligible to participate in the Auction, the Exchange proposes to include these orders in the definition of RFR Responses, even if such unrelated orders were submitted coincidentally during an Auction, as opposed to purposefully in response to an RFR. Specifically, pursuant to proposed Rule 971.1NY(c)(2)(C)(ii), the Exchange would consider unrelated orders on the opposite side of the market and in the same series as the CUBE Order to be RFR Responses provided that the orders were received during the Response Time Interval; were not marked as GTX; and would be eligible to participate within the range of permissible executions specified by proposed paragraph (b)(1). The Exchange believes that considering these unrelated orders as RFR Responses should increase the number of participants against which the CUBE Order may be executed, and should thus maximize opportunities for price improvement on the CUBE Order.

However, the Exchange would not consider as RFR Responses those unrelated orders that either would not provide an opportunity for price improvement on the CUBE Order or would not trade at the initiating price of the CUBE Order. Specifically, pursuant to proposed Rule 971.1NY(c)(2)(C)(ii)(a), unrelated orders received during the Response Time Interval that are not marketable against the NBBO, not marked GTX, or are otherwise unable to participate in the Auction, would be posted to the Consolidated Book. In addition, unrelated orders received during the Response Time Interval that are on the same side of the market as the CUBE Order to buy (sell) and that are priced higher (lower) than the initiating price, and therefore would create a new BBO on the same side as the CUBE Order, shall be posted to the Consolidated Book and would result in an early conclusion of the Auction pursuant to paragraph (c)(4) of the proposed Rule. In both cases, as discussed further below, such unrelated orders would cause the Auction to conclude early. The Exchange believes that early conclusion would avoid disturbing priority

in the Consolidated Book, in accordance with Rule 964NY, which dictates the priority of bids within the NYSE Amex System, and would allow the Exchange to appropriately handle unrelated orders without the Auction impacting that handling, while at the same time allowing the CUBE Order to execute against the Contra Order and any RFR Responses that may have been entered up to that point.

To be eligible to participate in the Auction, unrelated orders must be priced in the MPV for the series in the Auction. Only CUBE Orders, GTX Orders and Contra Orders – which are specifically slated for the Auction – would be permitted to be priced in one cent increments, regardless of the MPV for that option. The Exchange believes that it is appropriate to allow such orders to trade in one cent increments to enhance the opportunity for price improvement during the Auction. Thus, a quote or order other than a CUBE Order, GTX Order or Contra Order submitted in a one cent increment when the series has either a \$0.05 or \$0.10 MPV would be rejected as invalid. Rejecting quotes and orders with invalid prices submitted during an Auction is consistent with the treatment of invalid priced quote and orders entered at all other times.

## **Conclusion of the CUBE Auction and Order Allocation**

As proposed in Rule 971.1NY(c)(3), and similar to the operation of price improvement mechanisms offered by other exchanges, the CUBE Auction would conclude at the end of the Response Time Interval.<sup>32</sup> However, as described in proposed Rule 971.1NY(c)(4) (and discussed below), certain events may result in the early conclusion of the CUBE Auction. Consistent with the rules of other exchanges that operate electronic price improvement auctions,

<sup>32</sup> See, e.g., CBOE Rule 6.74A(b)(2)(A); PHLX Rule 1080(n)(ii)(B)(1); ISE Rule 723(c)(5)(I).

the Auction would conclude in the event of a trading halt in the affected series<sup>33</sup> and the CUBE Order would be executed per proposed Rule 971.1NY(c)(5).<sup>34</sup>

Proposed Rule 971.1NY(c)(5) sets forth the order allocation procedures for the CUBE Auction. Pursuant to proposed Rule 971.1NY(c)(5)(A), at each price level, any Customer orders resting on the Consolidated Book at the start of the CUBE Auction shall have first priority, followed by Customer orders that arrived during the CUBE Auction as RFR Responses. The Exchange notes, however, that pursuant to proposed paragraph (b)(1)(B), the permissible range of executions for a CUBE Order would have already preserved the integrity of the priority of any Customer orders resting at the start of the Auction. Generally, at the conclusion of the CUBE Auction, the Auction mechanism would determine whether the total RFR Responses can fill the CUBE Order at a price or prices better than the initiating price. If so, the CUBE Order is matched against the better-priced RFR Responses granting the CUBE Order the maximum amount of price improvement possible. As noted above, certain unrelated orders may be considered RFR Responses and may interact with the CUBE Order (thus maximizing opportunities for price improvement) and any portion of these unrelated orders remaining thereafter would be placed on the Consolidated Book.

When there are multiple RFR Responses at a given price, the CUBE Order would be executed against the RFR Responses on a pro-rata basis pursuant to the size pro rata algorithm set forth in Rule 964NY(b)(3), except that Customers at a given price are executed first in priority. The Exchange believes that, as proposed, the Auction maximizes the opportunity for

<sup>33</sup> See, e.g., CBOE Rule 6.75A(b)(2)(F); PHLX Rule 1080(n)(ii)(B)(3).

Because the execution of the CUBE Auction is deemed to have occurred at the time the CUBE Auction is initiated, if a trading halt occurs in the series during the Response Time Interval causing the Auction to conclude early, the Exchange does not believe that such execution needs to be nullified pursuant to Rule 953NY Commentary .03.

price improvement while maintaining the priority of Customer orders. In addition, per proposed paragraph (c)(5), any single RFR Response that has a contract size that exceeds the size of the CUBE Order would be treated as if it were the same size as (i.e., would be capped at) the size of the CUBE Order for allocation purposes, per Rule 964NY(b)(3). The Exchange believes that this would encourage participation in the Auction (by not rejecting these Responses) and would assist in avoiding the opportunity for an ATP Holder to subvert the size pro rata allocation method by submitting outsized trading interest.

The Exchange proposes that the Contra Order, having guaranteed the execution of the CUBE Order, should be entitled to a certain level of participation in the Auction, provided there is sufficient size remaining after better-priced interest and Customer interest has been satisfied. As proposed, assuming sufficient interest in the CUBE Order remains after executing against Customer interest or better-priced interest, the Contra Order would then be entitled to a participation guarantee equal to the greater of one contract or either (a) 40% of the size of the initial CUBE Order (if there are multiple RFR Responses to the Auction) or (b) 50% of the size of the initial CUBE Order (if there is only one RFR Response to the Auction). The Exchange believes that the proposed participation guarantee, which is consistent with the rules of this and other option exchanges, is a fair inducement in exchange for guaranteeing the entire size of the Initiating Participant's agency order (i.e., the CUBE Order). As discussed above, and similar to the operation of electronic auctions on other options exchanges, an Initiating Participant can

<sup>35</sup> See, e.g., Rule 934.1NY(4)(A) (providing for a 40% allocation for facilitation orders in facilitation cross transactions). See also PHLX Rule 1080(n)(2)(E)(2)(a) (providing up to 50% allocation with participation guarantees); ISE Rule 713 Commentary .03 (providing up to 60% allocation for participation guarantees); CBOE Rule 6.74A(b)(3)(F).

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opt to guarantee the execution of a CUBE Order via a single stop price, by auto-match or by specifying an auto-match limit price.<sup>36</sup>

Proposed paragraphs (b)(i)-(iii) to the proposed Rule set forth how a CUBE Order would trade with Responses and/or the Contra Order, which depends upon the RFR Responses, if any, and how the Contra Order guaranteed the execution of the CUBE Order. Pursuant to proposed Rule 971.1NY(c)(5)(B)(i), a CUBE Order guaranteed by a single stop price would first execute against better-priced Responses or Customer interest, and, if there is sufficient size remaining, the CUBE Order would then execute against the Contra Order at the stop price. It is possible, however, that after the CUBE Order executes against the better-priced RFR Responses, the Contra Order would not receive the full extent (or, perhaps, any) of its participation guarantee at the stop price, as shown in the second example below.

## **Examples of Trade Allocation – Single Stop Price**

## Example #6 (No Customer interest on BB):

NBBO =	\$1.15 - \$1.25	200 x 200
BBO =	\$1.15 - \$1.25	100 x 100

CUBE Order to buy 50 contracts with a limit price of \$1.20 Contra Order selling 50 contracts with a single stop price of \$1.20

Permissible range of executions is \$1.15 to \$1.20

RFR sent identifying the series, side and size, with initiating price of \$1.20 (Auction Starts)

MM1GTX Order received @ 410 milliseconds Sell 5 at \$1.17 MM4 GTX Order received @ 530 milliseconds Sell 10 at \$1.18 MM3 GTX Order received @ 650 milliseconds Sell 40 at \$1.20

651 milliseconds (Auction Ends)

Under this scenario the CUBE Order would be executed as follows:

36 See, e.g., CBOE Rule 6.74A(b)(3); PHLX Rule 1080(n)(ii)(E); ISE Rule 723(d)(4); BOX Rule 7150(g)(1).

5 contracts trade with MM1 @ \$1.17

10 contracts trade with MM4 @ \$1.18

20 contracts trade with the Contra Order @ \$1.20 (This satisfies their 40% participation guarantee)

15 contracts trade with MM3 @ \$1.20

(This fills the entire CUBE Order)

## Example #7 (No Customer interest on BB):

NBBO =	\$1.15 - \$1.25	200 x 200
BBO =	\$1.15 - \$1.25	100 x 100

CUBE Order to buy 50 contracts with a limit price of \$1.20

Contra Order selling 50 contracts with a single stop price of \$1.20

Permissible range of executions is \$1.15 to \$1.20

RFR sent identifying the series, side and size, with initiating price of \$1.20 (Auction Starts)

MM1GTX Order received @ 410 milliseconds	Sell 20 at \$1.17
MM4 GTX Order received @ 430 milliseconds	Sell 20 at \$1.18
MM3 GTX Order received @ 450 milliseconds	Sell 40 at \$1.20
557 milliseconds (Auction Ends)	

Under this scenario, the CUBE Order would be executed as follows:

20 contracts trade with MM1 @ \$1.17

20 contracts trade with MM4 @ \$1.18

10 contracts trade with the Contra Order @ \$1.20 (Contra Order does not receive 40% participation guarantee because there is not sufficient size available)

(This fills the entire CUBE Order)

MM3 does not trade any contracts

#### Example of Trade Allocation – Single Stop Price & Unrelated Order

#### Example #8 (No Customer interest on BB):

NBBO =	\$1.20 - \$1.24	200 x 100
BBO =	\$1.20 - \$1.24	100 x 100

CUBE Order to buy 20 contracts with a limit of \$1.22

Contra Order selling 20 contracts with a single stop price of \$1.22

Permissible range of executions is \$1.20 to \$1.22

RFR sent identifying the series, side and size, with initiating price of \$1.22 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds

MM1GTX Order received @ 210 milliseconds

MM4 GTX Order received @ 230 milliseconds

F1 Unrelated Order received @ 400 milliseconds

Sell 20 at \$1.22

Under this scenario the CUBE Order would be executed as follows:

20 contracts trade with the unrelated order for F1 @ \$1.21 (the best-priced Response)

(This fills the CUBE Order in its entirety and the Contra Order does not receive an execution)

GTX responses cancel

30 contracts remaining from the unrelated order for F1 post to the Consolidated Book resulting in new BBO

BBO = \$1.20 - \$1.21 100 x 30

Where the Initiating Participant elects auto-match or auto-match limit to guarantee the execution of a CUBE Order, the Contra Order would be allocated size equal to all other RFR Responses at each price point or at each price point within the limit price range - if a limit is specified - until a price point is reached where the balance of the CUBE Order could be fully executed (the "clean-up price"). At the clean-up price, if there is sufficient interest in the CUBE Order remaining after better-priced interest and Customer interest has been executed, the Contra Order would be allocated additional contracts to ensure its guaranteed participation rate – the greater of one contract or 40% (or 50%, if only one Response) of the size of the initial CUBE Order. If the Contra Order meets its allocation guarantee at a price below (above) the clean-up price, it will cease matching RFR Responses that may be priced above (below) the price at which the Contra Order received its allocation guarantee. In addition, if there are other RFR Responses at the clean-up price, the remaining CUBE Order contracts will be allocated pursuant to the size pro rata algorithm set forth in Rule 964NY(b)(3) and any remaining CUBE Order contracts shall be allocated to the Contra Order at the initiating price. In the event that there are no RFR

Responses to the Auction and an auto-match feature is selected, the CUBE Order shall execute against the Contra Order at the initiating price.

## **Examples of Trade Allocation -- Auto-match and Auto-match limit**

### Example #9 (No Customer interest on BB):

NBBO =	\$1.15 - \$1.25	200 x 200
BBO =	\$1.15 - \$1.25	100 x 100

CUBE Order to buy 50 contracts with a limit price of \$1.24 Contra Order selling 50 contracts auto-match

Permissible range of executions is \$1.15 to \$1.24

RFR sent identifying the series, side and size, with initiating price of \$1.24 (Auction Starts)

MM2 GTX Order received @ 350 milliseconds	Sell 5 at \$1.17
MM4 GTX Order received @ 430 milliseconds	Sell 10 at \$1.18
MM3 GTX Order received @ 450 milliseconds	Sell 40 at \$1.21
623 milliseconds (Auction Ends)	

Under this scenario the CUBE Order would be executed as follows:

5 contracts trade with MM2 @ \$1.17

5 contracts trade with Contra Order @ \$1.17 (due to auto-match)

10 contracts trade with MM4 @ \$1.18

10 contracts trade with Contra Order @ \$1.18 (due to auto-match)

5 contracts trade with Contra Order @ \$1.21 (due to auto-match capped at 40% participation guarantee)

15 contracts trade with MM3 @ \$1.21 (the Contra Order trades zero contracts at this price having already received their 40% participation guarantee at \$1.21)

(This fills the entire CUBE Order)

## Example #10 (No Customer interest on BB):

NBBO =	\$1.15 - \$1.25	200 x 200
BBO =	\$1.15 - \$1.25	100 x 100

CUBE Order to buy 51 contracts with a limit price of \$1.25 Contra Order selling 51 contracts auto-match limit at \$1.17

Permissible range of executions is \$1.15 to \$1.25

RFR sent identifying the series, side and size, with initiating price of \$1.25 (Auction Starts)

MM2 GTX Order received @ 150 milliseconds
MM5 GTX Order received @ 200 milliseconds
MM4 GTX Order received @ 230 milliseconds
MM3 GTX Order received @ 450 milliseconds
623 milliseconds (Auction Ends)

Sell 20 at \$1.16
Sell 5 at \$1.19
Sell 50 at \$1.19

Under this scenario the CUBE Order would be executed as follows:

20 contracts trade with MM2 @ \$1.16

10 contracts trade with MM4 @ \$1.18

10 contracts trade with Contra Order @ \$1.18 (due to auto-match limit)

10 contracts trade with Contra Order @ \$1.19 (due to auto-match limit and fulfills their 40% guarantee)

1 contract trades with MM3 @ \$1.19

(This fills the entire CUBE Order)

## **Early Conclusion of A CUBE Auction**

As noted earlier, the CUBE Auction is integrated seamlessly within the Exchange's Consolidated Book and is designed to maintain the priority of all resting quotes and orders and any timely RFR Responses, as well as unrelated orders that are marketable at the time of arrival. Thus, as proposed, a CUBE Auction would conclude early (i.e., before the end of the Response Time Interval) as a result of certain events that would otherwise disrupt the priority of the Auction within the Consolidated Book. The Exchange notes that this is consistent with how the electronic price improvement auctions of other markets operate.<sup>37</sup>

Proposed Rule 971.1NY(c)(4), explains how a CUBE Order would be allocated as a result of each of the events that would cause the early conclusion of an Auction. First, pursuant to proposed Rule 971.1NY(c)(4)(A), if, during a CUBE Auction, a new CUBE Auction in the

See, e.g., CBOE 6.74A(b); PHLX 1080(n)(ii); ISE Rule 723 Supplementary Material .04; BOX Rule 7150(i).

Pursuant to proposed Rule 971.1NY(c)(3), and as discussed herein, a trading halt in the affected series would also result in the early conclusion of an Auction and contracts would be allocated pursuant to proposed paragraph (c)(5).

same series is received by the Exchange, the original CUBE Order would conclude and execute pursuant to proposed Rule 971.1NY(c)(5) and the new CUBE Auction would proceed as described in proposed Rule 971.1NY(c). The Exchange believes that this practice is consistent with the rules of other exchanges operating electronic auctions, which would ensure a fair and orderly market by maintaining the priority of the Consolidated Book while still affording the opportunity for price improvement on each Auction commenced on the Exchange.<sup>39</sup>

Second, pursuant to proposed Rule 971.1NY(c)(4)(B), if, during a CUBE Auction the Exchange receives an unrelated quote or order that is on the same side of the market as the CUBE Order, that is marketable against any RFR Response or the NBBO (or BBO, if a non-routable order<sup>40</sup>) at the time of arrival, the Auction will conclude early so that this incoming order may be executed following the execution of the CUBE Order (which has priority), consistent with the terms of the unrelated incoming order. The CUBE Order, upon its early conclusion, will execute pursuant to proposed paragraph (c)(5). The Exchange notes that this practice is consistent with how the electronic price improvement auctions of other markets operate.<sup>41</sup> If there is sufficient size to the RFR Responses remaining after executing against the CUBE Order, the order that caused the early conclusion of the Auction would trade with the

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See, e.g., CBOE Rule 6.74A(b); ISE Rule 723(b)(3); ISE Rule 723 Supplementary Material .04. The Exchange notes that although these rules specify that auctions may not overlap or queue in any manner, the rules are nonetheless silent on how this is enforced (i.e., by rejecting new auction orders or by concluding an ongoing auction early).

The Exchange notes that an order that has been designated as an order type that is not eligible to be routed away will either be placed on the Consolidated Book or cancelled if such order would lock or cross the NBBO. See Rule 964NY(c)(2)(E). If an incoming non-routable order is marketable against the NBBO, but not the BBO, and by its terms, such order would cancel, e.g., an IOC Order, it would not cause an early conclusion to an Auction. However, if such an order were marketable against the BBO, i.e., if the BBO equaled the NBBO, it would cause an early conclusion to the Auction.

See, e.g., CBOE Rule 6.74A(b)(2)(B); PHLX Rule 1080(n)(ii)(B)(2); ISE Rule 723(c)(5); BOX Rule 7150(i).

remaining RFR Responses at the best available prices, which may be better than the NBBO (or BBO for non-routable orders). 42

The Exchange believes the early conclusion of the Auction in this instance would ensure that the priority of quotes and orders on the Consolidated Book would not be disrupted. In this circumstance, those GTX Orders that do not execute in the CUBE Auction would execute against the unrelated order that caused the CUBE Auction to conclude early to the extent possible (maximizing price improvement for the incoming same-side marketable quote or order that caused the early conclusion to the Auction) and would then cancel. Any contracts remaining from any unrelated order when the RFR Responses have been exhausted would be processed in accordance with Rule 964NY Order Display and Priority.

## Example of Early Conclusion of Auction – Same Side Marketable Against NBBO at the Time of Arrival

#### Example #11 (No Customer interest on BB):

NBBO =	\$1.20 - \$1.24	200 x 200
BBO =	\$1.20 - \$1.24	100 x 100

CUBE Order to buy 20 contracts for \$1.23

Contra Order selling 20 contracts auto-match limit at \$1.22

Permissible range of executions is \$1.21 to \$1.23

RFR sent, identifying the series, side and size, initiating price of \$1.23 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds Sell 20 at \$1.23 MM1GTX Order received @ 210 milliseconds Sell 20 at \$1.22 MM4 GTX Order received @ 230 milliseconds Sell 20 at \$1.22

C1 Unrelated Order received @ 250 milliseconds Buy 100 at the market (Same-side order marketable against the NBO causes an early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

<sup>42 &</sup>lt;u>See, e.g.</u>, CBOE Rule 6.74A(b)(3)(J).

8 contracts trade with the Contra Order @ \$1.22 (This satisfies their 40% participation guarantee)

6 contract trades with MM1 @ \$1.22

6 contract trades with MM4 @ \$1.22

(This fills the entire CUBE Order)

C1 unrelated order to buy 100 at the market then executes as follows:

14 contracts trade with MM1 @ \$1.22

14 contracts trade with MM4 @ \$1.22

20 contracts trade with MM3 @ \$1.23

The remaining 52 contracts from C1 unrelated order are handled pursuant to existing Rule 964NY(in this case, that means the 52 contracts would trade with the interest comprising the BO, which was offering 100 contracts at \$1.24)

The third scenario that would result in the early conclusion of a CUBE Auction would be if, during a CUBE Auction, the Exchange receives any RFR Response that is marketable against the NBBO (or BBO, if a non-routable order) at the time of arrival. The RFR Response could be a GTX Order or an unrelated order that is a marketable limit order or a market order. While the incoming order that is on the opposite side of the CUBE Order may be marketable against the updated NBBO, as noted above, the fact that the NBBO updated during the Response Time Interval in of itself does not cause an early conclusion to the Auction.

Pursuant to proposed Rule 971.1NY(c)(4)(i), if the CUBE Auction concludes early because the Exchange receives during the Response Time Interval an unrelated marketable limit order or quote on the opposite side of the CUBE Order, the CUBE Order would execute pursuant to proposed paragraph (c)(5). Contracts remaining, if any, from unrelated quotes or orders at the time the Auction concludes would be processed in accordance with Rule 964NY Order Display and Priority. Any unfilled GTX Orders would cancel. The Exchange believes that early conclusion in this circumstance would ensure that the Auction interacts seamlessly with the Consolidated Book so as not to disturb the priority of orders on the Book. The unrelated order or quote that caused the Auction to end early would be considered an RFR Response for purposes

of allocation pursuant to proposed paragraph (c)(5), and thus would participate in the Auction consistent with its limit price and order instructions. The Exchange also notes that concluding the Auction early under this circumstance is consistent with how the electronic price improvement auctions of other markets operate.<sup>43</sup>

## <u>Example of Early Conclusion of Auction – Opposite Side Limit Order</u> <u>Marketable Against NBBO at the Time of Arrival</u>

## Example #12a (No Customer interest on BB):

NBBO =	\$1.20 - \$1.24	200 x 100
BBO =	\$1.20 - \$1.24	100 x 100

CUBE Order to buy 50 contracts with a limit of \$1.24 Contra Order selling 50 contracts with a stop price of \$1.24

Permissible range of executions \$1.20 - \$1.24

RFR sent identifying the series, side and size, initiating price of \$1.24 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds Sell 50 at \$1.22 MM1GTX Order received @ 210 milliseconds Sell 50 at \$1.22 MM4 GTX Order received @ 230 milliseconds Sell 50 at \$1.23 BD1 Unrelated Order received @ 400 milliseconds Sell 10 at \$1.20 (Opposite-side order marketable against the NBB causes an early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

10 contracts trade with the unrelated order for BD1 @ \$1.20

20 contracts trade with MM3 @ \$1.22

20 contracts trade with MM1 @ \$1.22

(This fills the entire CUBE Order)

MM4 does not trade any contracts

Contra Order does not trade any contracts

#### Example #12b: (Customer interest on BB):

NBBO =	\$1.20 - \$1.24	200 x 100
BBO =	\$1.20 - \$1.24	100 x 100

43 See, e.g., CBOE 6.74A(b)(2)(B); ISE Rule 723(c)(5); BOX 7150(j).

CUBE Order to buy 50 contracts with a limit of \$1.24 Contra Order selling 50 contracts with a stop price of \$1.24

Permissible range of executions is \$1.21 to \$1.24

RFR sent identifying the series, side and size, initiating price of \$1.24 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds Sell 50 at \$1.22 MM1GTX Order received @ 210 milliseconds Sell 50 at \$1.22

MM4 GTX Order received @ 230 milliseconds Sell 50 at \$1.23

BD1 Unrelated Order received @ 400 milliseconds Sell 10 at \$1.20 (Opposite-side order marketable against the NBB causes an early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

10 contracts trade with the unrelated order for BD1 @ \$1.21 (Customer on the BB, so allowable range must improve BB by .01)

20 contracts trade with MM3 @ \$1.22

20 contracts trade with MM1 @ \$1.22

(This fills the entire CUBE Order)

MM4 does not trade any contracts

Contra Order does not trade any contracts

## Example #12c (No Customer interest on BB and updated NBB during Auction):

NBBO =	\$1.20 - \$1.24	200 x 100
BBO =	\$1.20 - \$1.24	100 x 100

CUBE Order to buy 50 contracts with a limit of \$1.24 Contra Order selling 50 contracts with a stop price of \$1.24

Permissible range of executions \$1.20 - \$1.24

RFR sent identifying the series, side and size, initiating price of \$1.24 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds
MM1GTX Order received @ 210 milliseconds
MM4 GTX Order received @ 230 milliseconds
New NBB posted on an away market

Sell 50 at \$1.22
Sell 50 at \$1.23

(New NBB does not cause early conclusion)<sup>44</sup>

BD1 Unrelated Order received @ 400 milliseconds Sell 10 at \$1.21 (Opposite-side order marketable against the updated NBB causes an early conclusion to the Auction)

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<sup>44 &</sup>lt;u>See</u> Rule 991NY(b)(5).

Under this scenario, the CUBE Order would be executed as follows:

10 contracts trade with the unrelated order for BD1 @ \$1.21

20 contracts trade with MM3 @ \$1.22

20 contracts trade with MM1 @ \$1.22

(This fills the entire CUBE Order)

MM4 does not trade any contracts

Contra Order does not trade any contracts

## Example #12d (No Customer interest on BB and updated BB during Auction):

NBBO = \$1.20 - \$1.24 200 x 100 BBO = \$1.20 - \$1.24 100 x 100

CUBE Order to buy 50 contracts with a limit of \$1.24 Contra Order selling 50 contracts with a stop price of \$1.24

Permissible range of executions \$1.20 - \$1.24

RFR sent identifying the series, side and size, initiating price of \$1.24 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds
MM1 GTX Order received @ 210 milliseconds
MM4 GTX Order received @ 230 milliseconds
MM5 unrelated quote received @ 500 milliseconds
Buy 10 at \$1.21

(New BB adjusts range of permissible executions

but does not cause early conclusion)<sup>45</sup>

MM6 GTX Order received @ 550 milliseconds Sell 10 at \$1.20

(Opposite-side order marketable against the

updated BB causes an early conclusion to the Auction)<sup>46</sup>

Under this scenario, the CUBE Order would be executed as follows:

10 contracts trade with MM6 @ \$1.21 (the GTX order has been re-priced to reflect the new BB  $^{\rm 47}$ 

20 contracts trade with MM1 @ \$1.22

20 contracts trade with MM4 @ \$1.22

(This fills the entire CUBE Order)

MM3 does not trade any contracts

Contra Order does not trade any contracts

<sup>45</sup> See proposed Rule 971.1NY(b)(1)(C).

 $<sup>\</sup>underline{\text{See}}$  proposed Rule 971.1NY(c)(4)(C).

 $<sup>\</sup>underline{\text{See}}$  proposed Rule 971.1NY(c)(2)(C)(i)(f).

If the order that causes the Auction to conclude early is a market order on the opposite side of the CUBE Order, the allocation of the CUBE Order varies depending on how the Contra Order guaranteed the execution of the CUBE Order and what, if any, RFR Responses are received before the Auction concludes early. Proposed paragraph (c)(4)(C)(ii) provides that if auto-match is selected and no RFR Responses have arrived at the time the Auction concludes early, if the CUBE Order is to buy (sell) and the unrelated order that caused the Auction to conclude early is a market order to sell (buy), the CUBE Order would execute against the unrelated market order at the midpoint of the initiating price and the lower (upper) bound of the range of permissible executions, as shown in the example below. If no midpoint is possible, the execution would be rounded up (down) to the nearest whole penny toward the initiating price. The Exchange believes that rounding in this manner ensures not only that the CUBE Order is afforded price improvement, but also that the priority of existing interest in the Consolidated Book is protected.

# <u>Example of Early Conclusion of Auction – Opposite Side Market Order w/Auto-match and no Responses</u>

## Example #13 (No Customer interest on BB):

NBBO = \$1.15 - \$1.25 200 x 200 BBO = \$1.15 - \$1.25 100 x 100

CUBE Order to buy 50 contracts with a limit of \$1.20 Contra Order selling 50 contracts with Auto-match

As noted above, the Auction may execute orders in the Auction as exceptions to Trade-Through Liability pursuant to Rule 991NY(b)(5). Accordingly, an opposite-side market order that arrives during the Auction, which by definition is less than a second, may trade through any updated NBBO published by an away market. Because, pursuant to proposed Rule 971.1NY(b)(3), an update to the CUBE Order's same-side BBO would update the permissible range of executions, an opposite-side market order would execute consistent with that updated permissible range of executions.

Permissible range of executions \$1.15 - \$1.20

RFR sent identifying the series, side and size, with initiating price of \$1.20 (Auction Starts)

BD1 Order received @ 490 milliseconds Sell 5 at the market (Opposite-side market order causes an early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

5 contracts trade with BD1 @ \$1.18 (midpoint of the initiating price and the lower bound of the range of permissible prices, here the NBB, rounded up to nearest whole \$.01 closer to the initiating price)<sup>49</sup> 5 contracts with Contra Order at \$1.18 (Auto-match) 40 contracts trade with Contra Order at \$1.20 (the initiating price) (This fills the entire CUBE Order)

### Example #13a (No Customer interest on BB and update to BB):

\$1.15 - \$1.25 NBBO =200 x 200 BBO =\$1.15 - \$1.25 100 x 100

CUBE Order to buy 50 contracts with a limit of \$1.20 Contra Order selling 50 contracts with Auto-match

Permissible range of executions \$1.15 - \$1.20

RFR sent identifying the series, side and size, with initiating price of \$1.20 (Auction Starts)

MM1 Ouote received @ 200 milliseconds Buy 100 at \$1.18

(New BB updates range of executions to \$1.18 - \$1.20)

BD1 Order received @ 490 milliseconds Sell 5 at the market (Opposite-side market order causes an early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

5 contracts trade with BD1 @ \$1.19 (midpoint of the initiating price and the lower bound of the range of permissible prices)

5 contracts with Contra Order at \$1.19 (Auto-match)

40 contracts trade with Contra Order at \$1.20 (the initiating price)

(This fills the entire CUBE Order)

In this scenario, the execution between the contra side market order and the CUBE Order should occur at the midpoint of the CUBE Order initiating price and the BBO on the same side of the market as the CUBE Order. In this case, that is the midpoint between \$1.15 and \$1.20 or \$1.175. In such situations, where the midpoint is less than a full cent, the execution will round back towards the CUBE Order initiating price – in this case,

\$1.18.

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Proposed paragraph (c)(4)(C)(iii) provides that when auto-match is selected and other RFR Responses are received before the arrival of the market order that caused the Auction to conclude early, if the CUBE Order is to buy (sell) and the market order is to sell (buy), the CUBE Order would execute against the unrelated market order at the lowest (highest) RFR Response price within the range of permissible executions. The Exchange believes this would maximize the opportunities for price improvement, while maintaining the priority of the Consolidated Book.

# Example of Early Conclusion of Auction – Opposite Side Market Order w/Auto-match and Responses before Early Conclusion

#### Example #14 (No Customer interest on BB):

NBBO =	\$1.15 - \$1.25	200 x 200
BBO =	\$1.15 - \$1.25	100 x 100

CUBE Order to buy 50 contracts with a limit of \$1.20 Contra Order selling 50 contracts with Auto-match

Permissible range of executions \$1.15 - \$1.20

RFR sent identifying the series, side and size, with initiating price of \$1.20 (Auction Starts)

MM4 GTX Order received @ 230 milliseconds Sell 10 at \$1.18 MM3 GTX Order received @ 450 milliseconds Sell 40 at \$1.20 BD1 Order received @ 490 milliseconds Sell 5 at the market (Opposite-side market order causes an early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

5 contracts trade with BD1 @ \$1.18 (market order executes at lowest RFR Response price within permissible price range, which is the \$1.18 offer from MM4 received at 230 milliseconds)

10 contracts trade with MM4 @ \$1.18

15 contracts trade with Contra Order @ \$1.18 (Auto-match other RFR Response prices)

5 contracts trade with the Contra Order @ \$1.20 (This satisfies their 40% participation guarantee)

15 contracts trade with MM3 @ \$1.20

(This fills the entire CUBE Order)

Pursuant to proposed Rule 971.1NY(c)(4)(C)(iv), and as illustrated by the examples that follow, if the Initiating Participant has selected a single stop price or auto-match limit to guarantee the execution of a CUBE Order to buy (sell), and the order that caused the Auction to conclude early is a market order to sell (buy), the CUBE Order would execute against the unrelated market order at the lowest (highest) price at which an execution could occur within the range of permissible executions, which may be either an RFR Response price, the single stop price, or the auto-match limit price.

# <u>Example of Early Conclusion of Auction – Opposite Side Market Order w/Stop Price</u>

### Example #15 (No Customer interest on BB):

NBBO =	\$1.15 - \$1.25	200 x 200
BBO =	\$1.15 - \$1.25	100 x 100

CUBE Order to buy 50 contracts with a limit of \$1.20 Contra Order selling 50 contracts with single stop price of \$1.20

Permissible range of executions \$1.15-\$1.20

RFR sent identifying the series, side and size, with initiating price of \$1.20 (Auction Starts,)

MM4 GTX Order received @ 230 milliseconds Sell 10 at \$1.19 MM3 GTX Order received @ 450 milliseconds Sell 40 at \$1.20 BD1 Order received @ 490 milliseconds Sell 5 at the market (Opposite-side market order causes an early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

5 contracts trade with BD1 @ \$1.19 (lowest-priced Response received during the Auction)

10 contracts trade with MM4 @ \$1.19

20 contracts trade with the Contra Order @ \$1.20 (This satisfies their 40% participation guarantee)

15 contracts trade with MM3 @ \$1.20

(This fills the entire CUBE Order)

# <u>Example of Early Conclusion of Auction – Opposite Side Market Order w/Automatch limit</u>

Example #16 (No Customer interest on BB):

NBBO = \$1.20 - \$1.24 200 x 100 BBO = \$1.20 - \$1.25 100 x 100

CUBE Order to buy 20 contracts with a limit of \$1.24 Contra Order selling 20 contracts with an auto-match limit price of \$1.23

Permissible range of executions \$1.21 - \$1.24

RFR sent identifying the series, side and size, with initiating price of \$1.24 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds Sell 20 at \$1.23 MM1GTX Order received @ 210 milliseconds Sell 20 at \$1.23 MM4 GTX Order received @ 230 milliseconds Sell 20 at \$1.23 BD1 Unrelated Order received @ 400 milliseconds Sell 10 at Market (Opposite-side market order causes early conclusion to the Auction)

Under this scenario, the CUBE Order would be executed as follows:

10 contracts trade with the unrelated order for BD1 @ \$1.23 (the lowest priced Response received during the Auction.)

8 contracts trade with Contra Order @ \$1.23 (this satisfies their 40% participation guarantee)

1 contract trades with MM3 @ \$1.23

1 contract trades with MM1 @ \$1.23

(This fills the entire CUBE Order)

MM4 does not trade any contracts 50

The Auction would also conclude early upon the arrival of an unrelated, non-marketable quote or limit order, that improves the CUBE Order's initiating price, pursuant to proposed Rule 971.1NY(c)(4)(D). Specifically, if, during a CUBE Auction where the CUBE Order is to buy (sell), the Exchange receives such a non-marketable unrelated order that is on the same side of the market as the CUBE Order that is priced higher (lower) than the initiating price, and therefore creates a new BB (BO) that is higher (lower) than the initiating price, the CUBE Order

MM4 receives no allocation pursuant to Rule 964NY(b)(3), which defaults to timepriority allocation when, as here, the bids are equal.

would execute pursuant to proposed paragraph (c)(5). Any unfilled GTX Orders would be eligible to execute against the unrelated order that caused the CUBE Auction to conclude early and would then cancel. Any contracts that remain from the unrelated non-marketable order after that order trades against interest in the Auction would then be processed in accordance with Rule 964NY Order Display and Priority. The Exchange believes that early conclusion in this circumstance would ensure that the Auction interacts seamlessly with the Consolidated Book so as not to disturb the priority of orders on the Book, while affording the CUBE Order (and the unrelated order) opportunities for price improvement.

# <u>Example of Early Conclusion of Auction – Same Side New BBO Improves</u> <u>Initiating Price</u>

### Example #17 (No Customer interest on BB):

NBBO =	\$1.20 - \$1.24	200 x 200
BBO =	\$1.20 - \$1.24	100 x 100

CUBE Order to buy 20 contracts with a limit price of \$1.22 Contra Order selling 20 contracts at \$1.22

Permissible range of executions \$1.21 - \$1.22

RFR sent identifying the series, side and size, with an initiating price of \$1.22 (Auction Starts)

MM3 GTX Order received @ 300 milliseconds

MM1GTX Order received @ 310 milliseconds

MM4 GTX Order received @ 430 milliseconds

C1 Unrelated Order received @ 550 milliseconds

Buy 100 at \$1.22

Buy 100 at \$1.23

(Same side limit order to buy that improves (<u>i.e.</u>, is priced higher than) the CUBE Order's initiating price causes the Auction to conclude early)

Under this scenario, the CUBE Order would be executed as follows:

8 contracts trade with the Contra Order @ \$1.22 (This satisfies their 40% participation guarantee)

4 contract trades with MM3 @ \$1.22

4 contract trades with MM1 @ \$1.22

4 contracts trade with MM4 @ \$1.22

(This fills the entire CUBE Order)

C1 unrelated order then executes as follows:

16 contracts trade with MM3 @ \$1.22

16 contracts trade with MM1 @ \$1.22

16 contracts trade with MM4 @ \$1.22

Remaining contracts post to the Consolidated Book as new BB paying \$1.23 for 52 contracts

The final scenario that would result in the early conclusion of an Auction, pursuant to proposed Rule 971.1NY(c)(4)(E), would occur if, during the Auction, the Exchange received interest sufficient to fill a resting AON order. After the early conclusion of the Auction, the CUBE Order would execute pursuant to paragraph (c)(5) and the Exchange would then determine whether the AON could be executed against interest in the Auction. The Exchange believes that early conclusion in this circumstance would ensure that the Auction interacts seamlessly with the Consolidated Book so as not to disturb the priority of orders on the Book, while affording the CUBE Auction opportunities for price improvement.

# <u>Example of Early Conclusion of Auction – Sufficient Interest to fill AON</u> Order Received during Response Time Interval

#### Example #18 (No Customer interest on BB):

NBBO = \$1.20 - \$1.24 200 x 200 BBO = \$1.20 - \$1.24 100 x 100

CUBE Order to buy with a limit price of \$1.22 for 20 contracts Contra Order selling 20 contracts with a single stop price of \$1.22

Permissible range of executions \$1.21 - \$1.22

RFR sent identifying the series, side and size, with initiating price of \$1.22 Resting AON Order to buy 20 contracts at \$1.21 (Auction Starts)

MM3 GTX Order received @ 200 milliseconds Sell 20 at \$1.21

(Arriving interest sufficient to fill resting AON order to buy causes the Auction to conclude early)

Under this scenario, the CUBE Order would be executed as follows:

20 contracts trade with MM3 @ \$1.21 (This fills the entire CUBE Order)
Contra Order does not trade
System reevaluates whether AON can be executed and concludes cannot, because interest executed with CUBE Order.

#### **Conduct Inconsistent with Just and Equitable Principles of Trade**

The Exchange is proposing Commentary to the Rule to set forth that certain activity in connection with the CUBE Auction would be considered conduct inconsistent with just and equitable principles of trade to discourage ATP Holders from attempting to misuse or manipulate the Auction process. This practice is consistent with the rules of other options exchanges that offer electronic price improvement auction mechanisms.<sup>51</sup> Specifically, pursuant to proposed Commentary .02 (a) – (d) to Rule 971.1NY, the Exchange proposes that the following conduct would be considered conduct inconsistent with just and equitable principles of trade:

- (a) An ATP Holder entering RFR Responses to a CUBE Auction for which the ATP Holder is the Initiating Participant. The Exchange believes this would prevent Initiating Participants from submitting an inaccurate or misleading stop price or trying to improve their allocation entitlement by participating with multiple expressions of interest.
- (b) Engaging in a pattern and practice of entering unrelated orders and quotes for the purpose of causing a CUBE Auction to conclude early, <u>i.e.</u>, before the end of the Response Time Interval. The Exchange believes this would prevent an ATP Holder from shortening the duration of the Auction thus possibly reducing the number of Responses to an Auction in order to gain a higher contract allocation

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<sup>51 &</sup>lt;u>See, e.g., PHLX Rule 1080(n)(iii)-(v); ISE Rule 723 Supplementary Material .01; BOX IM-7150-2(a) and (b).</u>

than the percentage the ATP Holder may have otherwise received had the Auction not concluded early.

(c) An Initiating Participant that breaks up an agency order into separate CUBE Orders for the purpose of gaining a higher allocation percentage than the Initiating Participant would have otherwise received in accordance with the allocation procedures contained in proposed paragraph (c)(5) to proposed Rule 971.1NY. The Exchange believes this would prevent Initiating Participants from manipulating the CUBE Orders size and number to gain a higher guaranteed execution than the Initiating Participant would have otherwise received. (d) Engaging in a pattern and practice of sending multiple RFR Responses at the same price that in the aggregate exceed the size of the CUBE Order. The Exchange believes this will prevent ATP Holders from attempting to misuse or manipulate the allocation process.

### **Order Exposure and Prohibited Conduct**

Current Rule 935NY prohibits Users<sup>52</sup> from executing as principal any orders they represent as agent unless (i) agency orders are first exposed on the Exchange for at least one (1) second or (ii) the User has been bidding or offering on the Exchange for at least one (1) second prior to receiving an agency order that is executable against such bid or offer. This rule helps to ensure that orders are properly exposed to market participants, affording them a reasonable amount of time in which to participate in the execution of the agency order.

As previously stated in this filing, the Exchange believes that the proposed

<sup>52</sup> Rule 900.2NY(87) defines User as any ATP Holder that is authorized to obtain access to the System.

Response Time Interval, with a random length of between 500 and 750 milliseconds, is of sufficient length so as to permit ATP Holders time to respond to a CUBE Auction thereby enhancing opportunities for competition among participants and increasing the likelihood of price improvement for the CUBE Order. Accordingly, the Exchange proposes to amend Rule 935NY to stipulate that a User may execute as principal an order that the User represents as agent, provided that the User avails him or herself of the CUBE Auction process, pursuant to Rule 971.1NY. Such CUBE Order would not be subject to the one-second order exposure requirement of Rule 935NY, which exclusion from the one-second order exposure requirement is consistent with the treatment of similar orders at BOX Options. <sup>53</sup> Consistent with Rule 935NY Commentary .01, ATP Holders shall only utilize the Auction where there is a genuine intention to execute a bona fide transaction. <sup>54</sup>

### **Proposed Pilot Period for Auctions of Fewer than 50 Contracts**

The Exchange is proposing that proposed Rules 971.1NY(b)(1)(B) (regarding CUBE Auctions for fewer than 50 contracts) and 971.1NY(b)(8) (that the minimum size for an Auction shall be one contract) be adopted for a pilot period effective for one year beginning on the approval date for this rule proposal. During this Pilot Period, the Exchange will submit certain data, periodically as required by the Commission, to provide supporting evidence that, among other things, there is meaningful competition for all size orders and that there is an active and liquid market functioning on the Exchange outside of the CUBE Auction. Any data that is submitted to the Commission will be provided on a confidential basis.

<sup>53 &</sup>lt;u>See BOX IM-7140-2.</u>

See Rule 935NY Commentary .01 ("Rule 935NY prevents a User from executing agency orders to increase its economic gain from trading against the order without first giving other trading interest on the Exchange an opportunity to either trade with the agency order or to trade at the execution price when the User was already bidding or offering on the book.")

To aid the Commission in its evaluation of the Pilot Program, the Exchange will provide the following additional information each month:

- 1) The number of orders of 50 contracts or greater entered into the CUBE Auction;
- 2) The number of orders of fewer than 50 contracts entered into the CUBE Auction:
- 3) The percentage of all orders of 50 contracts or greater sent to the Exchange that are entered into the CUBE;
- 4) The percentage of all orders of fewer than 50 contracts sent to the Exchange that are entered into the CUBE Auction;
- 5) The percentage of all Exchange trades represented by orders of fewer than 50 contracts;
- The percentage of all Exchange trades effected through the CUBE Auction represented by orders of fewer than 50 contracts;
- 7) The percentage of all contracts traded on the Exchange represented by orders of fewer than 50 contracts;
- 8) The percentage of all contracts effected through the CUBE Auction represented by orders of fewer than 50 contracts;
- 9) The spread in the option, at the time an order of 50 contracts or greater is submitted into the CUBE Auction;
- 10) The spread in the option, at the time an order of fewer than 50 contracts is submitted into the CUBE Auction;
- Of CUBE Auction trades for orders of fewer than 50 contracts, the percentage of CUBE Auction trades executed at the NBBO, NBBO plus \$.01, NBBO plus \$.02, NBBO plus \$.03, etc.;
- Of CUBE Auction trades for orders of 50 contracts or greater, the percentage of CUBE Auction trades executed at the NBBO, NBBO plus \$.01, NBBO plus \$.02, NBBO plus \$.03, etc.;
- The number of orders submitted by an ATP Holder when the bid-ask spread was at a particular increment (e.g., \$.01, \$.02, \$.03, etc.).

Also, relative to Item 13, for each spread, the Exchange will provide the percentage of contracts in orders of fewer than 50 contracts submitted to the CUBE Auction where the contraside was: (a) the ATP Holder that submitted the order to the CUBE Auction; (b) market makers assigned to the class; (c) other Exchange Participants; (d) Customers; (e) Professional Customers and (f) unrelated orders. For each spread, also specify the percentage of contracts in orders of 50 contracts or greater submitted to the CUBE Auction where the contra-side was: (a) the ATP Holder that submitted the order to the CUBE Auction; (b) market makers assigned to the class;

(c) other Exchange Participants; (d) Customers; (e) Professional Customers and (f) unrelated orders.

Further, the Exchange will provide, for the first and third Wednesday of each month, the: (a) total number of CUBE Auctions on that date; (b) number of CUBE Auctions where the order submitted to the CUBE Auction was fewer than 50 contracts; (c) number of CUBE Auctions where the order submitted to the CUBE Auction was 50 contracts or greater; (d) number of CUBE Auctions (where the order submitted to the CUBE Auction was fewer than 50 contracts and where the order submitted was 50 contracts or greater) where the number of Participants (excluding the Contra Order) was zero, one, two, three, four, etc.

The Exchange will also provide: the percentage of all Exchange trades effected through the CUBE Auction in which the Initiating Participant has elected to auto-match with a limit price and the percentage of such trades in which the Initiating Participant has elected to auto-match without a limit price, and the average amount of price improvement provided to the CUBE Order when the Initiating Participant has elected to auto-match with a limit price and the average without a limit price, versus the average amount of price improvement provided to the CUBE Order when the Initiating Participant has chosen a single stop price.

Finally, during the Pilot Program, the Exchange will provide information each month with respect to situations in which the CUBE Auction is terminated prematurely or a market or marketable limit order immediately executes with an initiating order before the CUBE Auction's conclusion. The following information will be provided:

(a) The number of times that the Auction concluded early upon the arrival of an unrelated quote or order that is on the same side of the market as the CUBE Order, that is marketable against any RFR Responses or the NBBO (or the BBO, for a non-routable order) at the time of arrival, and at what time such unrelated order/quote ended the Auction. Also, (i) the number of times such orders were entered by the same (or affiliated) firm that initiated the CUBE Auction that was

- concluded early, and (ii) the number of times such orders were entered by a firm (or an affiliate of such firm) that participated in the execution of the CUBE Order;
- (b) For the orders addressed in each of (a)(i) and (a)(ii) above, the percentage of CUBE Auctions that concluded early due to the receipt, during the CUBE Auction, of an unrelated quote or order on the same side of the market as the CUBE Order, that is marketable against any RFR Responses or the NBBO (or the BBO, for a non-routable order) at the time of arrival; and the average amount of price improvement provided to the CUBE Order where the CUBE Auction is concluded early;
- (c) The number of times that the Auction concluded early upon the arrival of any RFR Response that is marketable against the NBBO (or the BBO, for a non-routable order) at the time of arrival, and at what time such RFR Response ended the Auction. Also, (i) the number of times such RFR Responses were entered by the same (or affiliated) firm that initiated the CUBE Auction, and (ii) the number of times such RFR Responses were entered by a firm (or an affiliate of such firm) that participated in the execution of the CUBE Order;
- (d) For the orders addressed in each of (c)(i) and (c)(ii) above, the percentage of CUBE Auctions that concluded early due to the receipt, during the CUBE Auction, of any RFR Response that is marketable against the NBBO (or the BBO, for a non-routable order) at the time of arrival; and the average amount of price improvement provided to the CUBE Order where the CUBE Order is immediately executed;
- (e) The number of times that the Auction concluded early due to a trading halt and at what time the trading halt ended the CUBE Auction. Of the CUBE Auctions that concluded early due to a trading halt, the number that resulted in price improvement over the CUBE Order stop price, and the average amount of price improvement provided to the CUBE Order. Further, in the Auctions that concluded early due to a trading halt, the percentage of contracts that received price improvement over the CUBE Order stop price;
- (f) The number of times that the Auction concluded early upon the initiation of a new CUBE Auction in the same series and at what time the initiation of a new CUBE Auction ended the ongoing CUBE Auction.
- (g) The number of times that the Auction concluded early upon the receipt of an order with either an IOC, FOK or NOW contingency and at what time the receipt of such order ended the ongoing CUBE Auction
- (h) The number of times that the Auction concluded early because sufficient interest to fill an entire AON order is received during the Response Time Interval and at what time the ongoing CUBE Auction was completed; and
- (i) The average amount of price improvement provided to the initiating order when the CUBE Auction is not concluded early.

#### Section 11(a) of the Exchange Act

Section 11(a) of the Exchange Act prohibits any member of a national securities exchange from effecting transactions on that exchange for its own account, the account of an

associated person, or an account over which it or its associated persons exercises discretion ("covered accounts"), unless an exception applies.<sup>55</sup> Section 11(a)(1) contains a number of exceptions for principal transactions by members and their associated persons. As set forth below, the Exchange believes that the proposed rules for the CUBE Auction are consistent with the requirements of Section 11(a) and the rules thereunder.

In this regard, Section 11(a)(1)(A) provides an exception from the prohibitions in Section 11(a) for dealers acting in the capacity of market makers. The Exchange believes that orders sent by on- and off-floor market makers, for covered accounts, to the proposed CUBE Auction would qualify for this exception from Section 11(a).

In addition to this market maker exception, Rule 11a2-2(T) under the Exchange Act, known as the "effect versus execute" rule, provides exchange members with an exception from Section 11(a) by permitting them, subject to certain conditions, to effect transactions for covered accounts by arranging for an unaffiliated member to execute the transactions on the exchange. <sup>56</sup> To comply with the "effect versus execute" rule's conditions, a member: (i) must transmit the order from off the exchange floor; (ii) may not participate in the execution of the transaction once it has been transmitted to the member performing the execution; <sup>57</sup> (iii) may not be affiliated with the member executing the transaction on the floor, or through the facilities, of the Exchange; and (iv) with respect to an account over which the member has investment discretion,

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<sup>&</sup>lt;sup>55</sup> 15 U.S.C. 78k(a)(1).

<sup>&</sup>lt;sup>56</sup> 17 CFR 240.11a2-2(T).

The member, however, may participate in clearing and settling the transaction. <u>See</u> Securities Exchange Act Release No. 14563 (March 14, 1978), 43 FR 11542 (March 17, 1978).

neither the member nor its associated person may retain any compensation in connection with effecting the transaction except as provided in the rule.<sup>58</sup>

The Exchange believes that orders sent by off-floor ATP Holders, for covered accounts, to the proposed CUBE Auction would qualify for this "effect versus execute" exception from Section 11(a), as described below. In this regard, the first condition of Rule 11a2-2(T) is that orders for covered accounts be transmitted from off the exchange floor. The Exchange represents that orders for covered accounts from off-floor ATP Holders sent to the CUBE Auction would be transmitted from remote terminals that are off the Exchange floor directly to the mechanisms by electronic means. <sup>59</sup> In the context of other automated trading systems, the Commission has found that the off-floor transmission requirement is met if a covered account order is transmitted from a remote location directly to an exchange's floor by electronic means. <sup>60</sup>

The second condition of Rule 11a2-2(T) requires that the member not participate in the

<sup>&</sup>lt;sup>58</sup> 17 CFR 240.11a2-2(T).

In the alternative, orders for a covered account may be sent by an off-floor ATP Holder to an unaffiliated Floor Broker for entry into the CUBE Auction mechanism. Floor Brokers, however, may not enter orders for their own covered accounts into the Auction mechanism from on the floor, or transmit such orders from on the floor to off of the floor for entry into the CUBE Auction mechanism.

See, e.g., Securities Exchange Act Release Nos. 59154 (December 23, 2008), 73 FR 80468 (December 31, 2008) (SR-BSE-2008-48) (approving, among other things, the equity rules of the Boston Stock Exchange ("BSE")); 57478 (March 12, 2008), 73 FR 14521 (March 18, 2008) (SR-NASDAQ-2007-004 and SR-NASDAQ-2007-080) (approving rules governing the trading of options on The NASDAQ Options Market); 49068 (January 13, 2004), 69 FR 2775 (January 20, 2004) (SR-BSE-2002-15) (approving the Boston Options Exchange as an options trading facility of BSE); 15533 (January 29, 1979), 44 FR 6084 (January 31, 1979) (approving the Amex Post Execution Reporting System, the Amex Switching System, the Intermarket Trading System, the Multiple Dealer Trading Facility of the Cincinnati Stock Exchange, the PCX Communications and Execution System, and the Philadelphia Stock Exchange Automated Communications and Execution System) ("1979 Release"); and 14563 (March 14, 1978), 43 FR 11542 (March 17, 1978) (approving NYSE's Designated Order Turnaround System) ("1978 Release").

execution of its order once the order is transmitted to the floor for execution. The Exchange represents that, upon submission to the CUBE Auction, an order will be executed automatically pursuant to the proposed rules set forth for the Auction. In particular, execution of an order sent to the Auction depends not on the ATP Holder entering the order, but rather on what other orders are present and the priority of those orders. Thus, at no time following the submission of an order is an ATP Holder able to acquire control or influence over the result or timing of order execution. ATP

The third condition of Rule 11a2-2(T) requires that the order be executed by an exchange member who is unaffiliated with the member initiating the order. The Commission has stated that this requirement is satisfied when automated exchange facilities, such as the CUBE Auction, are used, as long as the design of these systems ensures that members do not possess any special or unique trading advantages in handling their orders after transmitting them to the exchange. The Exchange represents that the CUBE Auction is designed so that no ATP Holder has any special or unique trading advantage in the handling of its orders after transmitting its orders to the mechanism.

The fourth condition of Rule 11a2-2(T) requires that, in the case of a transaction effected for an account with respect to which the initiating member or an associated person thereof

The description above covers the universe of the types of ATP Holders (<u>i.e.</u>, on- and off-floor market makers, off-floor firms that are not market makers, and Floor Brokers).

The Exchange notes that the Initiating Participant may not cancel or modify a CUBE Order once a CUBE Auction has started. <u>See</u> proposed Rule 971.1NY(c).

In considering the operation of automated execution systems operated by an exchange, the Commission noted that, while there is not an independent executing exchange member, the execution of an order is automatic once it has been transmitted into the system. Because the design of these systems ensures that members do not possess any special or unique trading advantages in handling their orders after transmitting them to the exchange, the Commission has stated that executions obtained through these systems satisfy the independent execution requirement of Rule 11a2-2(T). See 1979 Release.

exercises investment discretion, neither the initiating member, nor any associated person thereof, may retain any compensation in connection with effecting the transaction, unless the person authorized to transact business for the account has expressly provided otherwise by written contract, referring to Section 11(a) of the Act and Rule 11a2-2(T) thereunder.<sup>64</sup> The Exchange recognizes that ATP Holders relying on Rule 11a2-2(T) for transactions effected through the CUBE Auction must comply with this condition of the Rule.

#### **Implementation**

The Exchange will announce the implementation date of the proposed rule change in a Trader Update to be published no later than 60 days following Commission approval. The implementation date will be no later than 60 days following publication of the Trader Update announcing Commission approval. The Exchange believes that this implementation schedule would provide ATP Holders with adequate notice of the Auction and would allow ample time for ATP Holders to prepare their systems for participation in the Auction process, if such participation is desired.

#### 2. **Statutory Basis**

For the reasons set forth above, the Exchange believes the proposed rule change is consistent with Section 6(b) of the Act in general, and furthers the objectives of Section 6(b)(5)

<sup>64</sup> See 17 CFR 240.11a2-2(T)(a)(2)(iv). In addition, Rule 11a2-2(T)(d) requires a member or associated person authorized by written contract to retain compensation, in connection with effecting transactions for covered accounts over which such member or associated persons thereof exercises investment discretion, to furnish, at least annually to the person authorized to transact business for the account, a statement setting forth the total amount of compensation retained by the member in connection with effecting transactions for the account during the period covered by the statement, which amount must be exclusive of all amounts paid to others during that period for services rendered to effect such transactions. See also 1978 Release (stating "[t]he contractual and disclosure requirements are designed to assure that accounts electing to permit transaction-related compensation do so only after deciding that such arrangements are suitable to their interests").

of the Act, in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest. In particular, the proposal would provide ATP Holders and Customers with an electronic Auction mechanism equipped to electronically execute proposed crossing transactions while affording opportunities for price improvement and helping to ensure equal access to exposed orders. The Exchange believes that the Auction would promote and foster competition as it would provide more options contracts with the opportunity for price improvement. In this regard, the CUBE Auction is intended to be beneficial to investors because the Auction may result in increased liquidity available at improved prices, with competitive final pricing out of the Initiating Participant's complete control.

Moreover, the Exchange notes that because the CUBE Auction is intended to operate seamlessly with the Consolidated Book, the proposed Auction would promote just and equitable principles of trade by providing price improvement opportunities for agency orders while at the same time providing an opportunity for such agency orders to interact with orders or quotes received during the Response Time Interval, including unrelated orders. Specifically, the Exchange notes that any ATP Holder that elects to subscribe to ArcaBook, including a broker dealer, is eligible to respond to an RFR and may therefore potentially participate in the Auction. As a result, the Exchange believes that the Auction will increase the number of options orders that are provided with the opportunity to receive price improvement.

The Exchange believes that the proposed guaranteed allocation of contracts to the Contra Order removes impediments to and perfects the mechanism of a free and open market because it should encourage ATP Holders to guarantee the execution of orders they may represent on an

agency basis by entering agency orders into the CUBE Auction. The Exchange notes that the proposed guarantee would also protect investors because the guaranteed allocation is subject to there being sufficient size remaining of the CUBE Order after executing against better-priced interest (thereby providing price improvement to the CUBE Order) and Customers (thereby protecting Customer interest). In addition, the CUBE Auction promotes equal access by providing any ATP Holder that elects to subscribe to ArcaBook with the opportunity to interact with orders in the CUBE Auction. In this regard, any ATP Holder can subscribe to receive the options data provided through ArcaBook. The CUBE Auction is also non-discriminatory by using a random timer for the exposure period, which period is not disclosed to any participants or Exchange staff, and is not even determined until the RFR is sent. The Exchange also believes that the proposed amendment to Rule 900.2NY to exclude Professional Customers from the definition of "Customer" for purposes of this rule is consistent with just and equitable principles of trade because it is intended to protect investors that are not broker dealers and ensure that their orders are protected regardless of whether there is an Auction.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange is proposing the Auction as a market enhancement that should increase competition for order flow on the Exchange in a manner that would be beneficial to investors. Specifically, the Exchange believes that the CUBE Auction would provide investors seeking to effect options orders with an opportunity for increased liquidity available at improved prices, with competitive final pricing out of the Initiating Participant's complete control. The proposal is structured to offer the same enhancement to all market participants and would not impose a competitive

burden on any participant. The Exchange notes that it operates in a highly competitive market in which market participants can readily direct order flow to competing venues who offer similar functionality. The Exchange believes the proposed rule change is pro-competitive because it would enable the Exchange to provide market participants with functionality that is similar to that of other options exchanges. The Exchange notes that not having the CUBE Auction at the Exchange places the Exchange at a competitive disadvantage vis-à-vis other exchanges that offer similar price improvement mechanisms.

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

No written comments were solicited or received with respect to 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 (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

- (A) by order approve or disapprove the 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.

#### Electronic comments:

Comments may be submitted by any of the following methods:

• Use the Commission's Internet comment form (<a href="http://www.sec.gov/rules/sro.shtml">http://www.sec.gov/rules/sro.shtml</a>); or

 Send an e-mail to <u>rule-comments@sec.gov</u>. Please include File Number SR-NYSEMKT-2014-17 on the subject line.

#### Paper comments:

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

All submissions should refer to File Number SR-NYSEMKT-2014-17. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<a href="http://www.sec.gov/rules/sro.shtml">http://www.sec.gov/rules/sro.shtml</a>). 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 20549-1090, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer

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to File Number SR-NYSEMKT-2014-17, and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.  $^{65}\,$ 

Kevin M. O'Neill Deputy Secretary

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