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OMB APPROVAL

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Page 1	of * 12	20		EXCHANGE ( STON, D.C. 2 orm 19b-4			File No.*	SR - 2016 - * 053 Amendments *)	
Filing by Chicago Board Options Exchange									
Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934									
Initia	l *	Amendment *	Withdrawal	Section 19(I	o)(2) *	Section	on 19(b)(3)(A) *	Section 19(b)(3)(B) *	
Pilot		ension of Time Period Commission Action *	Date Expires *	<ul> <li>19b-4(f)(1)</li> <li>19b-4(f)(2)</li> <li>19b-4(f)(5)</li> <li>19b-4(f)(3)</li> <li>19b-4(f)(6)</li> </ul>					
Notio	ce of pro	posed change pursuant	to the Payment, Cleari					Security-Based Swap Submission pursuant of the Securities Exchange Act of 1934	
Section 806(e)(1) *			Section 806(e)(2) *	ection 806(e)(2) *			Section 3C(b)(2) *		
Exhibit 2 Sent As Paper Document  Exhibit 3 Sent As Paper Document  Exhibit 3 Sent As Paper Document									
Provide a brief description of the action (limit 250 characters, required when Initial is checked *).  Proposed rule change to enhance current and adopt new price protection mechanisms and risk controls for orders and quotes.									
Contact Information  Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.									
First	Name '	* Laura		Last Name *	Dickman				
Title	Title * Lead Counsel								
E-ma	E-mail * Dickman@cboe.com								
Telephone * (312) 786-7919 Fax									
Signature									
Pursuant to the requirements of the Securities Exchange Act of 1934,									
has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.  (Title *)									
Date	9 09/01	/2016	[·	Counsel					
Ву									
(Name *)  NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.							0688165287,		

#### SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 For complete Form 19b-4 instructions please refer to the EFFS website. The self-regulatory organization must provide all required information, presented in a Form 19b-4 Information \* clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal Remove is consistent with the Act and applicable rules and regulations under the Act. The Notice section of this Form 19b-4 must comply with the guidelines for publication Exhibit 1 - Notice of Proposed Rule Change \* in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers quidance on Federal Register publication requirements in the Federal Register Add Remove View Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO] -xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3) The Notice section of this Form 19b-4 must comply with the guidelines for publication **Exhibit 1A- Notice of Proposed Rule** in the Federal Register as well as any requirements for electronic filing as published Change, Security-Based Swap Submission, by the Commission (if applicable). The Office of the Federal Register (OFR) offers or Advance Notice by Clearing Agencies \* guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO] -xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3) Exhibit 2 - Notices, Written Comments, Copies of notices, written comments, transcripts, other communications. If such Transcripts, Other Communications documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G. Remove View Add Exhibit Sent As Paper Document Exhibit 3 - Form, Report, or Questionnaire Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is Add Remove View referred to by the proposed rule change. Exhibit Sent As Paper Document The full text shall be marked, in any convenient manner, to indicate additions to and **Exhibit 4 - Marked Copies** deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit Add Remove View the staff to identify immediately the changes made from the text of the rule with which it has been working. The self-regulatory organization may choose to attach as Exhibit 5 proposed changes **Exhibit 5 - Proposed Rule Text** to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part Add Remove View of the proposed rule change. If the self-regulatory organization is amending only part of the text of a lengthy **Partial Amendment** proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial

amendment shall be clearly identified and marked to show deletions and additions.

# Item 1. <u>Text of the Proposed Rule Change</u>

- (a) Chicago Board Options Exchange, Incorporated (the "Exchange" or "CBOE") proposes to enhance current and adopt new price protection mechanisms and risk controls for orders and quotes. The text of the proposed rule change is provided in Exhibit 5.
  - (b) Not applicable.
  - (c) Not applicable.

# Item 2. <u>Procedures of the Self-Regulatory Organization</u>

- (a) The Exchange's President (or designee) pursuant to delegated authority approved the proposed rule change on June 21, 2016.
- (b) Please refer questions and comments on the proposed rule change to Joanne Moffic-Silver, Executive Vice President, General Counsel, and Corporate Secretary, (312) 786-7462, or Laura G. Dickman, (312) 786-7572, Chicago Board Options Exchange, Incorporated, 400 South LaSalle, Chicago, Illinois 60605.

# Item 3. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change</u>

#### (a) Purpose

The Exchange has in place various price check mechanisms and risk controls that are designed to prevent incoming orders and quotes from automatically executing at potentially erroneous prices or to assist Trading Permit Holders ("TPHs") with managing their risk.<sup>1</sup> These mechanisms and controls are designed to help maintain a fair and orderly market by mitigating potential risks associated with orders trading at prices that

See, e.g., Rule 6.12(a)(3) through (5) (limit order price parameters), 6.13(b)(v) (market-width and drill through price check parameters), 6.14 (price protections), 6.53C, Interpretation and Policy .08 (price check parameters for complex orders), and 8.18 (Quote Risk Monitor Mechanism ("QRM")).

are extreme and potentially erroneous, or in extremely large and potentially erroneous volumes, that may be harmful to market participants. The Exchange proposes to amend Rules 6.12(a)(3), 6.13(b)(v), 6.14 and 8.18 to add new, as well as enhance current, price protection mechanisms and risk controls to further prevent potentially harmful and disruptive trading.<sup>2</sup>

#### Limit Order Price Parameter for Simple Orders

The proposed rule change amends the limit order price parameter for simple orders in Rule 6.12(a)(3). This price parameter currently states simple limit orders will route directly from an order entry firm to an order management terminal ("OMT") designated by the order entry firm when initially routed to the Exchange if:

- prior to the opening of a series (including before a series is opened following a halt), the order is to buy (sell) at more than an acceptable tick distance ("ATD") above (below) the Exchange's previous day's close; however, this does not apply to CBOE or away market-makers; or
- once a series has opened, the order is to buy (sell) at more than an acceptable tick distance above (below) the disseminated Exchange offer (bid).

The proposed rule change states the System rejects back to a TPH an order to buy (sell) at more than an acceptable tick distance above (below) if:

• prior to the opening of a series (including during any pre-opening period and opening rotation), (1) the last disseminated national best offer ("NBO") (national best bid ("NBB")), if a series is open on another

The proposed rule change makes conforming changes to other rules, as further discussed below.

exchange(s), or (2) the Exchange's previous day's closing price, if a series is not yet open on any other exchange; if the NBBO is locked, crossed or unavailable<sup>3</sup>; or if there is no NBO (NBB) and the previous day's closing price is greater (less) than or equal to the NBB (NBO). However, this does not apply to orders of CBOE or away market-makers; if there is no NBO (NBB) and the Exchange's previous day's closing price is less (greater) than the NBB (NBO); or if there is no NBBO and no Exchange previous day's closing price;

- intraday, the last disseminated NBO (NBB), or the Exchange's best offer
   (bid) if the NBBO is locked, crossed or unavailable. However, this does
   not apply if there is no NBBO and no Exchange best bid or offer ("BBO");
   or
- during a trading halt (including during any pre-opening period or opening rotation prior to re-opening following the halt), the last disseminated NBO (NBB). However, this does not apply to a buy (sell) order if the NBBO is locked, crossed or unavailable or if there is no NBO (NBB).

Prior to a series opening on CBOE, the series may already be open on another exchange(s), in which case that exchange(s) would be disseminating an NBBO. The NBBO would more accurately reflect the then-current market, rather than the previous day's closing price, and thus the Exchange believes it would be a better measure to use for purposes of determining the reasonability of the prices of orders. If the series is not yet open on any other exchange, the System will continue to use the Exchange's previous

If the NBBO (or BBO) is not currently being disseminated, the NBBO (or BBO) will be considered "unavailable."

day's closing price as the comparison figure. Additionally, the System will use the Exchange's previous day's closing price if the NBBO is locked, crossed or unavailable (and thus unreliable) or if there is no NBO (NBB) and the Exchange's previous day's closing price is greater (less) than or equal to the NBB (NBO). The check will continue to not apply to orders of CBOE or away market-makers, and will also not apply to orders entered when there is no NBO (NBB) and the Exchange's previous day's closing price is less (greater) than the NBB (NBO) or if there is no NBBO and no Exchange previous day's closing price (for example, if the order is in a newly listed series) (and thus no reliable measure against which to compare the price of the order to determine its reasonability). Prior to the opening of a series, and the NBBO is unavailable, the previous day's closing price is the most relevant pricing information to determine the price at which an investor may want to buy or sell within a series, and the Exchange believes it is a reasonable substitute for the NBB or NBO when not available. With respect to the proposed provisions regarding the applicability of the check when there is no NBO (NBB) against which the price of the buy (sell) order can be compared to determine price reasonability, the Exchange believes using the previous day's closing price is appropriate if that price is greater (less) than or equal to the NBB (NBO) because it does not cross the disseminated NBB (NBO). On the contrary, if that price is less (greater) than the NBB (NBO), and thus would cross the disseminated NBB (NBO), the Exchange believes that closing price is too far away from what an NBO (NBB) would be if an offer (bid) quote or sell (buy) order were to be entered and essentially creates a crossed, unreliable market.

Once a series has opened on CBOE, this check will compare the price of a buy (sell) order to the last disseminated NBO (NBB) rather than the Exchange best offer (bid). The NBBO would more accurately reflect the then-current market, rather than the Exchange BBO, and thus the Exchange believes it would be a better measure to use for purposes of determining the reasonability of the prices of orders. The System will continue to use the Exchange BBO if the NBBO is locked, crossed or unavailable (and thus unreliable). This check will not apply intraday if there is no NBBO and no BBO (and thus no reliable measure against which to compare the price of the order to determine its reasonability).

With respect to orders entered during a trading halt (including during any preopening period or opening rotation prior to re-opening following a halt), the proposed rule change states the System will use the last disseminated NBO (NBB) rather than the Exchange's previous day's closing price (as the current rule states). If a halt occurs during the trading day, the NBO (NBB) would more accurately reflect the then-current market rather than the previous day's closing price, which would be stale by that time. This check will not apply to orders if the NBBO is locked, crossed or unavailable (and thus unreliable) or if there is no NBO (NBB) (and thus no reliable measure against which to compare the price of the order to determine its reasonability).

The rule currently states the Exchange determines the ATD on a series-by-series<sup>4</sup> and premium basis and will be no less than five minimum increment ticks. The proposed

The proposed rule change amends this to be class-by-class rather than series-by-series. The Exchange generally sets parameters on a class-by-class basis; however, pursuant to Rule 8.14, Interpretation and Policy .01, if the Exchange authorizes a group of series of a class to trade on the Hybrid Trading System and the remaining groups of

rule change amends the minimum ATD to be two minimum increment ticks rather than five. The Exchange believes it may be appropriate to set the ATD for certain classes (depending on the minimum increment and premium) or during different trading sessions (as further discussed below) to be fewer than five to ensure that the ATD price is not so far away from the market price and thus this price check is effective given the market model or market conditions.<sup>5</sup> Additionally, because market conditions during preopening periods, trading rotations, and trading halts,<sup>6</sup> are different than those present during regular trading hours, the proposed rule change provides the Exchange with flexibility to apply a different ATD during those times (which the Exchange may want to be less than the current minimum of five). The Exchange believes it is appropriate to have the ability to apply a different ATD during the pre-open period or opening rotation so the check does not impact the Exchange's ability to open an option or determination of the opening price. The Exchange may also want to apply a different ATD during a halt, as pricing during those times may be volatile and inaccurate.<sup>7</sup>

The proposed rule change deletes the Exchange's flexibility to not apply this price parameter to immediate-or-cancel orders, as the Exchange believes these orders are also

series of a class to trade on the Hybrid 3.0 Trading System, the Exchange will establish trading parameters on a group basis rather than class basis.

The Exchange notes Rule 6.13(b)(v) sets the minimum ATD at two minimum increments for the drill through protection.

Pursuant to Rule 6.1A(i), the Exchange may make a determination for Extended Trading Hours different from that made for Regular Trading Hours to the extent the rules allow the Exchange to make a determination, including on a class-by-class basis. Thus, the Exchange may set a different ATD for classes trading during Extended Trading Hours than the ATD set for those classes during Regular Trading Hours.

Note Rule 6.12, Interpretation and Policy .01 permits a senior official on the Exchange Help Desk or two Floor Officials to grant intra-day relief by widening or inactivating one or more of the applicable ATD parameters settings in the interest of a fair and orderly market.

at risk of execution at extreme and potentially erroneous prices and thus will benefit from applicability of these checks. The proposed rule change states this price parameter will not apply to orders routed from a PAR workstation or OMT. Orders routed from a PAR workstation or OMT are subject to manual handling, so the PAR or OMT operator will have evaluated the price of an order based on then-existing market conditions prior to submitting the order for electronic execution, and thus there is minimal risk of execution at an erroneous price.

The proposed rule change also states this price parameter does not apply to orders with a stop contingency. By definition, the stop contingency<sup>8</sup> is triggered for a buy order if there is a last sale or bid at or above the stop price and for a sell order if there is a last sale or offer at or below the stop price. As a result, buy orders with a stop contingency are generally submitted at a triggering price that is above the NBO, and sell orders with a stop contingency are generally submitted at a triggering price that is below the NBB. Because these orders are expected to be priced outside the NBBO, the Exchange will not apply this check to not interfere with the application of the stop contingency.<sup>9</sup>

#### Drill Through Price Check Parameter

The proposed rule change amends the drill through price check parameter in Rule 6.13(b)(v). Currently, the System will not automatically execute a marketable order if the execution would follow an initial partial execution on the Exchange and would be at a subsequent price not within an ATD from the initial execution (determined by the Exchange on a series-by-series and premium basis for market orders and/or marketable

See Rule 6.53.

The proposed rule change also makes nonsubstantive changes to Rule 6.12, including deletion of an extraneous period.

limit orders<sup>10</sup>). An ATD may be no less than two minimum increment ticks. If an execution is suspended because executing the remaining unexecuted portion of an order would exceed the drill through ATD, then such unexecuted portion will be exposed pursuant to the Hybrid Agency Liaison ("HAL") process in Rule 6.14A using the ATD as the exposure price. If a quantity remains at the conclusion of the HAL process or if the order has already been subject to the HAL process of if the order is not eligible for HAL, the remaining unexecuted quantity will route via the order handling system pursuant to Rule 6.12.

Pursuant to the proposed rule change, the drill through protection functions in a similar manner. The proposed rule change clarifies how the System handles orders that were not exposed prior to trading up to the drill through price and orders that traded up to the drill through price following exposure. Specifically, under the proposed rule change, if a buy (sell) order not yet exposed via HAL partially executes, and the System determines the unexecuted portion would execute at a subsequent price higher (lower) than the price that is an ATD above (below) the NBO (NBB) (the "drill through price"), the System will not automatically execute that portion and will expose<sup>11</sup> that portion via HAL at the better of the NBBO and the drill through price (if eligible for HAL). The

Pursuant to the rule filing proposing this language, the intent of this provision is to allow the Exchange to determine to apply the drill through price check parameter, as well as the market-width price check parameter, to market orders and/or marketable limit orders. See Securities Exchange Act Release No. 34-63191 (October 27, 2010), 75 FR 67411 (November 2, 2010) (SR-CBOE-2010-094) (notice of filing and immediate effectiveness of proposed rule change related to the Hybrid automatic execution feature, including a change to allow CBOE to determine "to apply these price check parameters to market and/or marketable limit orders"). Currently, the Exchange applies the marketwidth check to market orders and the drill through check to market and marketable limit orders. The proposed rule change merely removes this flexibility from the Rules and codifies the current practice (which is permitted under the current Rule).

The current HAL exposure period is 20 milliseconds.

Exchange will determine the ATD on a class and premium basis (which may be no less than two minimum increment ticks),<sup>12</sup> which the Exchange will announce via Regulatory Circular. If a buy (sell) order is exposed via HAL (other than pursuant to the previous sentence) or the Solicitation Auction Mechanism ("SAL")<sup>13</sup> and, following the exposure period pursuant to Rule 6.14A or 6.13A, respectively, the System determines the order (or any unexecuted portion) would execute at a price higher (lower) than the drill through price, the System will not automatically execute the order (or unexecuted portion).<sup>14</sup>

Under the proposed rule change, rather than route via the order handling system, these orders (or unexecuted portions) will rest in the book (based on the time at which they enter the book for priority purposes) for a time period in milliseconds (which the Exchange will determine and announce via Regulatory Circular and will not exceed three seconds)<sup>15</sup> with a price equal to the drill through price.<sup>16</sup> This time period will provide an

The proposed rule change amends this to be class-by-class rather than series-by-series. The Exchange generally sets parameters on a class-by-class basis; however, pursuant to Rule 8.14, Interpretation and Policy .01, if the Exchange authorizes a group of series of a class to trade on the Hybrid Trading System and the remaining groups of series of a class to trade on the Hybrid 3.0 Trading System, the Exchange will establish trading parameters on a group basis rather than class basis.

The proposed rule change expands this to include SAL, a similar price improvement auction the Exchange may activate in classes in which it did not activate HAL. In classes in which SAL is activated, an order eligible for SAL will be exposed immediately and would not partially execute prior to being exposed via SAL. For this reason, SAL is not included in proposed Rule 6.13(v)(B)(I).

The proposed rule change makes corresponding changes to Rules 6.13A and 6.14A to clarify orders (or portions) that do not execute following the applicable exposure process are subject to the drill through price check parameter in proposed Rule 6.13(b)(v)(B). The proposed rule change also amends Rule 6.14A to provide orders (or any unexecuted portions) may initiate a HAL at the better of the drill through price and NBBO and make nonsubstantive changes, including deletion of an extra space and use of plain English.

The Exchange intends to initially set this time period at two seconds.

Any order (or unexecuted portion) that by its terms cancels if it does not execute immediately (including immediate-or-cancel, fill-or-kill, intermarket sweep, and market-

additional opportunity for execution for these orders (or unexecuted portions) at a price that does not appear to be erroneous. If the order (or any unexecuted portion) does not execute during that time period, the System cancels it. Buy (sell) orders (or any unexecuted portion) not eligible for HAL or SAL will continue to not automatically execute at a subsequent price higher (lower) than the drill through price and will route it via the order handling system pursuant to Rule 6.12 (except orders (or any unexecuted portions) that by their terms cancel if they do not execute immediately (such as immediate-or-cancel, fill-or-kill, intermarket sweep, and market-maker trade prevention orders) will be cancelled). To avoid any confusion, the proposed rule change also clarifies this drill through check does not apply to executions of orders following exposure via HAL at the open pursuant to Rule 6.2B, Interpretation and Policy .03, which instead are subject to a separate drill through protection set forth in that rule.<sup>17</sup>

maker trade prevention orders) will be cancelled rather than rest in the book for this time period in accordance with the definition of those order types.

The proposed rule change amends the market width price check parameter in Rule 6.13(b)(v) (proposed Rule 6.13(b)(v)(A)) to be determined on a class-by-class basis rather than series-by-series. The Exchange generally sets parameters on a class-by-class basis; however, pursuant to Rule 8.14, Interpretation and Policy .01, if the Exchange authorizes a group of series of a class to trade on the Hybrid Trading System and the remaining groups of series of a class to trade on the Hybrid 3.0 Trading System, the Exchange will establish trading parameters on a group basis rather than class basis. The proposed rule change makes additional nonsubstantive changes to Rule 6.13(b)(v), including separation of the provisions regarding the market-width price check parameter from those regarding the drill through price check parameter and use of plain English. The proposed rule change also amends Rule 6.2B, Interpretation and Policy .03 to update the cross-reference to the drill through price check parameter and indicate the Exchange will determine the ATD for the opening drill through protection on a class-by-class rather than series-by-series basis consistent with the proposed rule change described above.

The following examples illustrate the new functionality to briefly rest orders in the book in connection with the drill through price check parameter:

#### Example #1

Suppose CBOE's market for a series in a class with a 0.05 minimum increment is 0.90 - 1.00, represented by a quote for 10 contracts on each side (the quote offer is Quote A). The following sell orders or quote offers also rest in the series: 10 contracts at 1.05 (Order A), 10 contracts at 1.10 (Quote B), 10 contracts at 1.15 (Order B), and 100 contracts at 1.20 (Order C). The market for away exchanges is 0.80 - 1.25. The Exchange's drill through amount for the class is three ticks (or 0.15), and the drill through resting time period is two seconds. The System receives an incoming order to buy 100 at 1.30, which executes against resting orders and quotes as follows: 10 against Quote A at 1.00, 10 against Order A at 1.05, 10 against Quote B at 1.10, and 10 against Order B at 1.15. The System will not automatically execute the remaining 60 contracts from the incoming order against Order C, because 1.20 is more than 0.15 away from the initial execution price of 1.00 and thus exceeds the drill through price check. The 60 unexecuted contracts are then exposed pursuant to HAL at 1.15 (which is the drill through price, and better than the NBO). No responses to trade against the remaining 60 contracts are entered during the auction, so the 60 contracts remain unexecuted. These contracts then rest in the book for two seconds at a price of 1.15. No incoming orders are entered during that time period to trade against the remaining 60 contracts, so the System cancels that remaining portion of the original incoming order.

# Example #2

Suppose CBOE's market for a series in a class with a 0.05 minimum increment is 0.90 - 1.00, represented by a quote for 10 contracts on each side (the quote offer is Quote A). The following sell orders or quote offers also rest in the series: 10 contracts at 1.05 (Order A), 10 contracts at 1.10 (Quote B), 10 contracts at 1.15 (Order B), and 100 contracts at 1.20 (Order C). The market for away exchanges is 0.80 - 1.10, with 5 contracts available on each side. The Exchange's drill through amount for the class is three ticks (or 0.15), and the drill through resting time period is two seconds. The System receives an incoming order to buy 100 at 1.30, which executes against resting orders and quotes as follows: 10 against Quote A at 1.00, 10 against Order A at 1.05, and 10 against Quote B at 1.10. The System will not automatically execute the remaining 70 contracts from the incoming order against Orders B and C, because CBOE no longer has size available at the NBBO. The 70 unexecuted contracts are then exposed pursuant to HAL at 1.10 (which is the NBO). No responses to trade against the remaining 70 contracts are entered during the auction, so 5 contracts route away to trade at 1.10 against the 5 contracts available at an away exchange. The best offer from an away exchange then changes to 1.25. Of the remaining 65 unexecuted contracts from the incoming order, 10 trade against Order B at 1.15. The System will not automatically execute the remaining 55 contracts from the incoming order against Order C, because 1.20 is more than 0.15 away from the initial execution price of 1.00 and thus exceeds the drill through price check. These contracts will not be exposed pursuant to HAL again, and instead will rest in the book for two seconds at a price of 1.15. An incoming order to buy 20 at 1.15 is entered after one second, which trades against 20 of the 55 resting contracts. No other incoming orders are entered during that time period to trade against the remaining 35 contracts, so the System cancels that remaining portion of the original incoming order.

#### **TPH-Designated Risk Settings**

The proposed rule change amends Rule 6.14 to authorize the Exchange to share any TPH-designated risk settings in the system with a Clearing TPH that clears Exchange transactions on behalf of the TPH. Rule 6.20(a) states unless otherwise provided in the Rules, no one but a TPH, an Order Book Official designated by the Exchange pursuant to Rule 7.3, or PAR Official designated by the Exchange pursuant to Rule 7.12 may make any transaction on the Exchange. All Exchange transactions must be submitted for clearance to the Options Clearing Corporation (the "Clearing Corporation") and are subject to the Clearing Corporation's rules. For each Exchange transaction in which it participates, a TPH must immediately give up the name of the Clearing TPH through which the Exchange transaction will be cleared. Every Clearing TPH is responsible for the clearance of the Exchange transactions of such Clearing TPH and each TPH that gives up such Clearing TPH's name pursuant to a letter of authorization, letter of guarantee or authorization given by such Clearing TPH to such TPH, which authorization must be submitted to the Exchange.

Thus, while not all TPHs are Clearing TPHs, all TPHs require a Clearing TPH's consent to clear Exchange transactions on their behalf in order to conduct business on the Exchange. The letter of authorization or guarantee, or other authorization, describes the relationship between the TPH and Clearing TPH and provides the Exchange with notice of which Clearing TPHs have relationships with which TPHs. The Clearing TPH that

<sup>&</sup>lt;sup>18</sup> See Rule 6.21.

See id.

guarantees the TPH's Exchange transactions has a financial interest in understanding the risk tolerance of the TPH. This proposed rule change would provide the Exchange with authority to provide Clearing TPHs directly with information that may otherwise be available to such Clearing TPHs by virtue of their relationship with respective TPHs.<sup>20</sup>

The risk settings that the Exchange may share with Clearing TPHs include, but are not limited to, settings under Rule 8.18 (related to QRM, as further described below), and will include settings under proposed Rule 6.14(d) (related to order entry and execution rate checks, as described below) and (e) (related to maximum contract size, as described below). To the extent the Exchange proposes additional rules providing for TPH-designated risk settings other than those in current rules and this rule filing, the Exchange will be able to share those settings with Clearing TPHs under this proposed change as well.<sup>21</sup> Other options exchange have similar rules permitting them to share member-designated risk settings with other members that clear transactions on the member's behalf.<sup>22</sup>

# Put Strike Price/Call Underlying Value Checks

The proposed rule change amends the put strike price and call underlying value checks in Rule 6.14(a). Pursuant to these checks, the System rejects back to the TPH a quote or buy limit order for (1) a put if the price of the quote bid or order is greater than

The Exchange will share a TPH's risk settings with its Clearing TPH(s) upon request from the Clearing TPH(s).

The proposed rule change also makes nonsubstantive changes to Rule 6.14, including adding risk controls to the name of the rule and an introductory sentence that the System's acceptance and execution of orders and quotes are subject to the price protection mechanisms and risk controls in Rule 6.14 and other rules.

See, e.g., Miami International Securities Exchange, LLC ("MIAX") Rule 500; NASDAQ OMX BX, Inc. ("BX") Chapter VI, Section 20; NYSE Arca, Inc. ("Arca") Rule 6.2A(a); NYSE MKT LLC ("MKT") Rule 902.1NY(a); and NASDAQ OMX PHLX LLC ("PHLX") Rule 1016.

or equal to the strike price of the option, or (2) a call if the price of the quote bid or order is greater than or equal to the consolidated last sale price of the underlying security, with respect to equity and exchange-traded fund options, or the last disseminated value of the underlying index, with respect to index options. The proposed rule change extends this check to apply to market orders (or any remaining size after partial execution).

With respect to put options, a TPH seeks to buy an option that could be exercised into the right to sell the underlying. The value of a put can never exceed the strike price of the option, even if the underlying goes to zero. For example, one put for stock ABC with a strike price of \$50 gives the holder the right to sell 100 shares of ABC for \$50, no more or less. Therefore, it would be illogical to pay more than \$50 for the right to sell shares of ABC, regardless of the price of ABC. Under this check, the Exchange deems any put bid or buy limit order with a price that equals or exceeds the strike price of the option to be erroneous and rejects it, and the Exchange believes it would be appropriate to similarly reject a market order (or remaining size after partial execution) that would execute at that erroneous price.

With respect to call options, a TPH seeks to buy an option that could be exercised into the right to buy the underlying. The Exchange does not believe a derivative product that conveys the right to buy the underlying should ever be priced higher than the prevailing value of the underlying itself. In that case, a market participant could purchase the underlying at the prevailing value rather than pay a larger amount for the call. Accordingly, under this check, the Exchange rejects bids or buy limit orders for call options with prices that are equal to or in excess of the value of the underlying. As an example, suppose a TPH submits an order to buy an ABC call for \$11 when the last sale

price for stock ABC is \$10. The System rejects this order. The Exchange believes it would be appropriate to similarly reject a market order (or remaining size after partial execution) that would execute at that erroneous price.

The Exchange also proposes to amend Rule 6.14(a) to provide the Exchange will not (as opposed to have the discretion not to) apply the call check to a class during Extended Trading Hours. The Exchange currently does not apply the check during that trading session and is only deleting its ability to apply the check during that trading session, which it does not expect to do.<sup>23</sup> Additionally, the proposed rule change states the put and call checks will not apply to market orders that execute during the opening process as set forth in Rule 6.2B to avoid impacting the determination of the opening price. Separate price protections apply during the opening process, including the drill through protection in Rule 6.2B.<sup>24</sup>

# Quote Inverting NBBO Check

The proposed rule change amends Rule 6.14(b) regarding the quote inverting NBBO check. Pursuant to this check, if CBOE is at the NBO (NBB), the System rejects a quote back to a Market-Maker if the quote bid (offer) crosses the NBO (NBB) by more than a number of ticks specified by the Exchange. If CBOE is not at the NBO (NBB), the System rejects a quote back to a Market-Maker if the quote bid (offer) locks or crosses

Note the current rule states the check does not apply if market data for the underlying is unavailable. If the value of the underlying is not currently being disseminated, market data for the underlying will be considered "unavailable."

The Exchange also makes a nonsubstantive change to Rule 6.14(a) so the language reads "greater than or equal to" rather than "equal to or greater than," which is the standard phrase.

the NBO (NBB).<sup>25</sup> If the NBBO is unavailable, locked or crossed, then this check compares the quote to the BBO (if available). The rule is currently silent on what happens if the BBO is also unavailable. Therefore, the proposed rule change clarifies the System does not apply this check to incoming quotes when the BBO is also unavailable, as there is no then-current price to use as a comparison to determine the reasonability of the quote. The proposed rule change also clarifies this is true when a series is open for trading.

The proposed rule change further clarifies the times when this check applies. Current Rule 6.14(b)(ii) provides the Exchange may not apply the check during the preopening, a trading rotation, or trading halt. Proposed Rule 6.14(b)(ii) states prior to the opening of a series (including during any pre-opening period and opening rotation), the System does not apply this check to incoming quotes if the series is not open on another exchange. This is consistent with flexibility in the current rule permitting the Exchange to apply (or not apply) the check prior to the open. The Exchange believes without inputs of pricing from other exchanges, it is appropriate to not apply the check if a series is not yet open on another exchange to avoid rejecting quotes that may be consistent with market pricing not yet available in the System. Proposed Rule 6.14(b)(iii) deletes the Exchange's flexibility to apply the quote inverting NBBO check during a trading halt. The Exchange currently does not apply the check to quotes entered during these times and does not expect to do so. The proposed rule change moves the provision permitting a senior official at the Exchange's Help Desk to determine not to apply this check in the interest of maintaining a fair and orderly market to proposed Rule 6.14(b)(iv).

The System also cancels any resting quote of the Market-Maker in the same series.

# Execution of Quotes That Lock or Cross NBBO

The proposed rule change amends the provision related to the execution of quotes that lock or cross the NBBO in current Rule 6.14(b)(iii). As this is a separate limitation on execution than the quote inverting NBBO check in Rule 6.14(b),<sup>26</sup> the proposed rule change moves this limitation to proposed Rule 6.14(c) (and makes other nonsubstantive changes to the numbering and lettering within that paragraph, as well as adding a name to the paragraph). The rule currently states if the System accepts a quote that locks or crosses the NBBO, the System executes the quote bid (offer) against quotes and orders in the book at a price(s) that is the same or better than the best price disseminated by an away exchange(s) up to the size available on the Exchange and either (1) cancels any remaining size of the quote, if the price of the quote locks or crosses the price disseminated by the away exchange(s), or (2) books any remaining size of the quote, if the price of the away exchange(s); provided, if a quote inverts another quote, it is subject to Rule 6.45A(d)(ii) or 6.45B(d)(ii).

Rules 6.45A(d)(ii) and 6.45B(d)(ii) state the System will not disseminate an internally crossed market, and if a Market-Maker submits a quote that would invert an existing quote, the System will change the incoming quote so it locks the existing quote. The Exchange then disseminates the locked market, and both quotes will be deemed firm. When the market locks, a counting period will begin during which Market-Makers whose quotes are locked may eliminate the locked quote (provided a Market-Maker will be

The quote inverting NBBO check rejects quotes back to a Market-Maker if the quote bid (offer) crosses the NBO (NBB) by more than a specified number of ticks. The limitation on execution of quote that lock or cross the NBBO describes how the System will handle quotes that lock or cross the NBBO (but not by more than the specified number of ticks and thus are accepted).

obligated to execute orders eligible for automatic execution at its disseminated quote). If at the end of the counting period the quotes remain locked, the locked quotes will automatically execute against each other in accordance with the applicable allocation algorithm.

Under current Rule 6.14(b)(iii) (which is being moved to proposed paragraph (c)), an incoming quote that locks or crosses the NBBO would execute against quotes that are at the same best price disseminated by an away exchange up to the size available on the Exchange. However, if the only available size on the Exchange at that best price is a Market-Maker quote, any counting period under the quote lock rule would cause the Exchange to disseminate a quote that locks that of an away exchange (which should be avoided pursuant to Rule 6.82 and the Options Linkage Plan). To prevent this, the proposed rule change states if the Exchange has established a counting period for a class pursuant to Rule 6.45A(d)(i) or 6.45B(d)(i), then notwithstanding Rule 6.45A(d) or 6.45B(d), if CBOE (represented by a Market-Maker quote offer (bid)) and an away exchange(s) are each at the NBO (NBB), the System rejects an incoming Market-Maker quote bid (offer) (or unexecuted portion after the quote trades against any resting orders in the Book at the NBO (NBB)) that locks or crosses resting Market-Maker quote offer (bid) at the NBO (NBB).<sup>27</sup> For example, suppose the NBBO is 1.00 – 1.20 and the BBO is 0.95 – 1.20 in equity class ABC. The 1.20 offer on CBOE consists of a Market-Maker quote. Suppose the counting period in Rule 6.45A(d)(i) is set at one second. If another Market-Maker submits a quote bid for 1.20, rather than lock with the resting Market-

Rules 6.45A(d)(ii) and 6.45B(d)(ii) continue to apply to inverted quotes in other circumstances.

Maker quote offer of 1.20 pursuant to the quote lock provision, the incoming quote bid will be rejected.

Incoming bid (offer) quotes that lock or cross the NBO (NBB) if CBOE alone is at the NBO (NBB) and no Market-Maker quote represents the NBO (NBB), if an away exchange alone is at the NBO (NBB), or if there is no counting period will continue to be handled as described in current Rule 6.14(b)(iii) (proposed paragraph (c)) (the System executes the quote bid (offer) against quotes and orders in the book at prices that are the same or better than the best price disseminated by an away exchange(s) up to the size available on CBOE (which amount is none if CBOE is not at the NBO (NBB)), and cancels the remaining size).

In addition, the current rule is silent regarding the applicability of this limitation on execution to quotes when the NBBO is locked, crossed or unavailable. The purpose of this provision is to prevent trade-throughs and displays of locked and crossed markets in accordance with the Options Linkage Plan. However, when the NBBO is locked or crossed, it is unreliable for comparison purposes. Additionally, if there is no NBBO available, then there is no measure against which the System can compare the price of an incoming quote. Therefore, the proposed rule change states if the NBBO is locked, crossed or unavailable, the System does not apply this check to incoming quotes. The linkage rules similarly provide exceptions to the prohibitions on trade-throughs and crossed markets when there is a crossed market or systems or equipment malfunctions.<sup>28</sup> The proposed rule change adds a senior official at the Exchange's Help Desk may determine not to apply this check in the interest of maintaining a fair and orderly

<sup>28 &</sup>lt;u>See</u> Rules 6.81 and 6.82.

market.<sup>29</sup> The Exchange may believe it is appropriate to disable this check in response to a market event or market volatility to avoid inadvertently cancelling quotes not erroneously priced but rather priced to reflect potentially rapidly changing prices.

#### Order Entry, Execution and Price Parameter Rate Checks

The proposed rule change adopts order entry, execution and price parameter rate checks in proposed Rule 6.14(d). Currently, QRM (described below) provides Market-Makers with functionality to help manage their risk by limiting the number of quotes they may execute in a specified period of time (based on several parameters). The proposed order entry and execution rate checks will provide similar risk-management functionality for orders. These order risk protections are designed to aid TPHs in their risk management by supplementing current and proposed price reasonability checks with activity-based order protections that protect against entering too many orders, executing too many contracts, and having too many orders rejected because of price protection parameters in a short time, based on parameters entered by TPHs.

Specifically, the proposed rule change states each TPH must provide to the Exchange parameters for an acronym or, if the TPH requests, a login, <sup>30</sup> for each of the

Pursuant to Exchange procedures, any decision to not apply the quote inverting NBBO check, as well as the reason for the decision, will be documented, retained, and periodically reviewed.

A TPH firm may have multiple acronyms. For each Trading Permit a TPH purchases, it receives up to three log-ins (the TPH may elect to use fewer than the three). Additionally, a TPH may purchase additional bandwidth packets, each of which comes with three log-ins. The TPH determines which log-ins will be used under which acronym. While not required, TPH firms, for example, may use one acronym, or log-in, for its proprietary business and another for its customer agency business (if the firm conducts both). Additionally, TPH firms sometimes use different log-ins for different customers. Allowing TPHs to set parameters for these protection mechanisms will allow TPHs to minimize the possibility of these mechanisms from affecting multiple

following rate checks. The System will count each of the following over rolling time intervals, which the Exchange will set and announce via Regulatory Circular:

- (1) the total number of orders (of all order types) and auction responses entered and accepted by the System ("orders entered");
- (2) the total number of contracts (from orders and auction responses) executed on the System, which does not count executed contracts from orders submitted from a PAR workstation or an OMT or stock contracts executed as part of stock-option orders ("contracts executed");
- (3) the total number of orders the System books or routes via the order handling system<sup>31</sup> pursuant to the drill through price check parameter (as amended by this proposed rule change) in proposed Rule 6.13(b)(v)(B) ("drill through events"); and
- (4) the total number of orders the System cancels or routes via the order handling system pursuant to the limit order price parameter in Rule 6.12(a)(3) through (5) ("price reasonability events").

When the System determines the orders entered, contracts executed, drill through order events or price reasonability events within the applicable time interval exceeds a TPH's parameter, the System (1) rejects all subsequent incoming orders and quotes, (2) cancels all resting quotes (if the acronym or login is for a Market-Maker), and (3) for

As discussed above, orders (or unexecuted portions) that by their terms cancel if they do not execute immediately will be cancelled rather than rest in the book for a period of time (as proposed in this filing) pursuant to the drill through price check parameter is triggered. Because these orders will not book or route pursuant to the drill through price check parameter, these orders will not be included in the count for the drill through event check.

businesses, if they choose to set up acronyms and log-ins in a manner that keeps these business separate.

the orders entered and contracts executed checks, if the TPH requests (i.e., this part of the proposed functionality is optional), cancels resting orders (either all orders, orders with time-in-force of day, or orders entered on that trading day) for the acronym or login, as applicable.

The System will not accept new orders or quotes from a restricted acronym or login, as applicable, until the Exchange receives the TPH's manual notification (in a form and manner determined by the Exchange, which will be announced by Regulatory Circular) to reactivate its ability to send orders and quotes for the acronym or login. While an acronym or login is restricted, a TPH may continue to interact with any resting orders (i.e., orders not cancelled pursuant to this protection) entered prior to its acronym or login becoming restricted, including receiving trade execution reports and canceling resting orders.

While these order entry and execution rate checks are mandatory for all TPHs, the Exchange is not proposing to establish minimum or maximum values for the parameters described in (1) through (4) above. The Exchange believes this approach will give TPHs the flexibility needed to appropriately tailor these checks to their respective risk management needs. In this regard, the Exchange notes each TPH is in the best position to determine risk settings appropriate for its firm based on its trading activity and business needs. The Exchange will set the values of the time intervals<sup>32</sup>; however, the Exchange believes the amount of flexibility provided to TPHs by having no minimum or maximum values, or default values, for the parameters, as well as by permitting the parameters to be

The Exchange expects the initial time intervals for all these checks to be set at one and five minutes. The time intervals set by the Exchange will apply to all TPHs, who will not be able to change these time intervals.

set at the acronym or login level, sufficiently allows TPHs to adjust their parameter inputs to these intervals in accordance with their business models and risk management needs.

The Exchange believes these proposed order entry and execution rate checks will assist TPHs in better managing their risk when trading on CBOE. In particular, the proposed rule change provides functionality that allows TPHs to set risk management thresholds for the number of orders entered or contracts executed on the Exchange during a specified period. This is similar to how other options exchanges have implemented activity-based risk management protections, and the Exchange believes this functionality will likewise benefit TPHs.<sup>33</sup> Additionally, similar to QRM, which includes a parameter for the maximum number of QRM incidents that will trigger cancellation of their orders and quotes once reached, the proposed rule change includes parameters for a maximum number of orders that book or route pursuant to the drill through check and cancel or route pursuant to the limit order price check. This could occur, for example, if a system issue is causing many orders to be submitted at prices that are too far away from the market and likely erroneous; this protection will help prevent execution of these erroneous orders.

See, e.g., International Securities Exchange, LLC ("ISE") Rule 714(d) and MIAX Rule 519A.

The below examples illustrate how these order entry and execution rate checks will work:

# Example #1 – Order Entry Rate Check

A TPH designates an allowable orders entered rate of 9 orders/1 minute for acronym ABC. The TPH enters three orders for acronym ABC, then enters nine additional orders one minute and thirty seconds later (for the same acronym). Because the orders entered did not exceed the TPH's designated rate for acronym ABC within one minute (the second batch of orders was entered more than one minute after the first batch of orders), acronym ABC is not restricted from submitting additional orders. Thirty seconds later, the TPH enters one additional order for acronym ABC. Entry of this order triggers the rate check because the TPH entered 10 orders in less than one minute for acronym ABC. At this time, acronym ABC becomes restricted,<sup>35</sup> and the System will reject all orders (and quotes, if acronym ABC is a Market-Maker), cancel any resting quotes (if acronym ABC is a Market-Maker), and cancel resting orders (if the TPH opted to enable that functionality). The TPH must contact the Exchange to resume trading for acronym ABC.

# Example #2 – Contracts Executed Rate Check

A TPH designates an allowable contracts executed rate of 999 contracts/1 minute for acronym DEF. The TPH enters an order to buy 600 contracts for acronym DEF, which immediately executes against a resting quote offer. One minute and 15 seconds

As noted above, the Exchange intends to initially set intervals of one minute and five minutes, so the TPH would have a separate entry rate for the five-minute interval, which would be measured in the same manner demonstrated by these examples. This is true for each of the rate checks in proposed Rule 6.14(e).

Note the System accepts the tenth order entered, as the check is not triggered until the orders entered exceeds the TPH's designated rate during a one-minute interval.

after that execution, the TPH enters an order to sell 500 contracts for acronym DEF, which immediately executes against a resting quote bid. Because the two executions did not exceed the TPH's designated rate for acronym DEF within one minute (the second execution occurred more than one minute after the first execution), acronym DEF is not restricted from submitting additional orders. Forty-five seconds after the second execution, the TPH enters an order to buy 500 contracts for acronym DEF, which immediately executes against a resting sell order. Execution of this third order triggers the rate check because the TPH executed 1,000 contracts in less than one minute for acronym DEF. At this time, acronym DEF becomes restricted,<sup>36</sup> and the System will reject all orders (and quotes, if acronym DEF is a Market-Maker), cancel any resting quotes (if acronym DEF is a Market-Maker), and cancel resting orders (if the TPH opted to enable that functionality). The TPH must contact the Exchange to resume trading for acronym DEF.

### Example #3 – Drill Through Event Rate Check

A TPH designates an allowable drill through event rate of 1 event/1 minute for acronym GHI. The ATD for the class, whose minimum increment is 0.05, is 0.10 (i.e., two minimum increments). The market for the XYZ Dec 50 call is 1.00 – 1.20, represented by an order for 100 contracts on each side. There are also resting orders to buy 100 at 0.90 and buy 100 at 0.80. The TPH enters a market order to sell 300 contracts for acronym GHI. One hundred contracts from the order execute against the resting order to buy 100 at 1.00 and 100 more contracts from the order execute against the resting order to buy 100 at 0.90. The System cancels the remaining 100 contracts of the order

Note the System executes this third order, as the check is not triggered until the contracts executed exceeds the TPH's designated rate during a one-minute interval.

after resting in the book at 0.90 for a period of time (pursuant to the drill through protection, as proposed to be changed). Thirty seconds later, the market for the XYZ Jan 40 call is 2.00 - 2.20, represented by an order for 100 contracts on each side. There are also resting orders to sell 100 at 2.25, sell 100 at 2.30, and sell 100 at 2.40. The TPH enters a market order to buy 500 contracts for acronym GHI. One hundred contracts from the order execute against the resting order to sell 100 at 2.20, 100 more contracts from the order execute against the resting order to sell 100 at 2.25, and 100 more contracts from the order execute against the resting order to sell 100 at 2.30. One hundred of the remaining contracts executes at 2.30 while resting in the book for a period of time, and the System cancels the remaining 100 contracts (pursuant to the drill through protection, as proposed to be changed). This is the second instance in less than one minute of the remaining portion of an order for acronym GHI being cancelled due to the drill through protection. At this time, acronym GHI becomes restricted, and the System will reject all orders (and quotes, if acronym GHI is a Market-Maker), and cancel any resting quotes (if acronym GHI is a Market-Maker). The TPH must contact the Exchange to resume trading for acronym GHI.

# Example #4 – Price Reasonability Event Rate Check

A TPH designates an allowable price reasonability event rate of 1 event/1 minute for acronym JKL. The ATD for the class, whose minimum increment is 0.05, is 0.10 (i.e., two minimum increments). The market for the XYZ Dec 50 call is 1.00 – 1.20. The TPH enters a limit order to sell at 0.85 for acronym JKL. The System rejects the order because it is more than 0.10 below the NBB (pursuant to the limit order price parameter, as proposed to be changed). Thirty seconds later, the market for the XYZ Jan 40 call is

2.00 – 2.20. The TPH enters a limit order to buy at 2.40 for acronym JKL. The System rejects the order because it is more than 0.10 above the NBO (pursuant to the limit order price parameter, as proposed to be changed). This is the second instance in less than one minute of an order for acronym JKL being rejected due to the limit order price parameter. At this time, acronym JKL becomes restricted, and the System will reject all orders (and quotes, if acronym JKL is a Market-Maker), and cancel any resting quotes (if acronym JKL is a Market-Maker). The TPH must contact the Exchange to resume trading for acronym JKL.

#### Maximum Contract Size

The proposed rule change adds a maximum contract size risk control. Specifically, proposed Rule 6.14(e) states the System will reject a TPH's incoming order or quote (including both sides of a two-sided quote) if its size exceeds the TPH's designated maximum contract size parameter. Each TPH must provide a maximum contract size for each of simple orders, complex orders, and quotes applicable to an acronym or, if the TPH requests, a login.<sup>37</sup> The Exchange believes the amount of flexibility provided to TPHs by having no maximum for the contract size parameter, as well as by permitting the parameters to be set at the acronym or login level, sufficiently allows TPH to adjust their parameter inputs to these intervals in accordance with their business models and risk management needs. The Exchange believes this proposed risk control will help prevent executions of orders with size that may be potentially erroneous and mitigate risk associated with such executions. This is similar to how other options

For purposes of determining the contract size of an incoming order or quote, the proposed rule states the contract size of a complex order will equal the contract size of the largest option leg of the order (*i.e.*, if the order is a stock-option order, this check will not apply to the stock leg of the order).

exchanges have implemented maximum contract size protections, and the Exchange believes this functionality will likewise benefit TPHs.<sup>38</sup>

If a TPH enters an order or quote to replace a resting order or update a resting quote, respectively, and the System rejects the incoming order or quote because it exceeds the applicable maximum contract size, the System will also cancel the resting order or any resting quote in the same series. The Exchange believes it is appropriate to reject or cancel the resting order or quote because, by submitting a replacement order or quote update because it exceeds the TPH's maximum contract size, the TPH is implicitly instructing the Exchange to cancel the resting order or quote, respectively. Thus, even if the system rejects the replacement order or quote update, the TPH's implicit instruction to cancel the resting order or quote remains valid nonetheless. Additionally, with respect to quotes, the Exchange believes it is appropriate to reject or cancel, as applicable, both sides of a quote (whether submitted as a two-sided quote or resting, respectively) because Market-Makers generally submit two-sided quotes, as their trading strategies and risk profiles are based on the spreads of their quotes. Rejecting and cancelling, as applicable, quotes on both sides of the series is consistent with this practice. The Exchange believes cancellation of resting quotes and orders, and rejection of both sides of a two-sided quote, operate as additional safeguards that cause TPHs to re-evaluate orders and quotes before attempting to submit new orders or quotes.

To the extent a TPH submits a pair of orders to the Automated Improvement Mechanism ("AIM"),<sup>39</sup> the Solicitation Auction mechanism ("SAM"),<sup>40</sup> or as a qualified

<sup>&</sup>lt;sup>38</sup> See, e.g., MIAX Rule 519(b).

See Rule 6.74A for a description of the AIM auction process.

<sup>40</sup> See Rule 6.74B for a description of the SAM auction process.

cross-contingent order ("QCC order"),<sup>41</sup> this proposed check will apply to both orders in the pair. If the System rejects either order in the pair, then the system will also cancel the paired order. It is the intent of these paired orders to execute against each other (with respect to AIM and SAM orders) or as a single transaction (with respect to QCC orders). Thus, the Exchange believes it is appropriate to reject both orders if one does not satisfy the maximum contract size check to be consistent with the intent of the submitting TPH. Notwithstanding the foregoing, with respect to A:AIR<sup>42</sup> orders, if the System rejects the agency order pursuant to the maximum contract size check, then the System will also reject the contra-side order. However, if the System rejects the contra-side order pursuant to this check, the System will accept the agency order (assuming it satisfies the check). The purpose of the A:AIR contingency provides the opportunity for the agency order (which is a customer of the submitting TPH) to execute despite not entering an AIM auction pursuant to which the order may execute against a facilitation or solicitation order of the TPH. The Exchange believes the proposed rule change is consistent with that contingency.

#### Kill Switch

The Exchange proposes to adopt a kill switch in proposed Rule 6.14(f). The kill switch will be an optional tool allowing a TPH to send a message to the System to, or contact the Exchange Help Desk to request that the Exchange, cancel all its resting quotes (if the acronym or login is for a Market-Maker), resting orders (either all orders, orders with time-in-force of day, or orders entered on that trading day), or both for an acronym

See Rule 6.53(u) for a definition of OCC orders.

<sup>&</sup>lt;sup>42</sup> <u>See</u> Rule 6.74A, Interpretation and Policy .09 for a description of the A:AIR functionality.

or login. The System will send a TPH an automated message when the Exchange has processed a kill switch request for any acronym or login.

Once a TPH initiates the kill switch for an acronym or login, the System rejects all subsequent incoming orders and quotes for the acronym or login, as applicable. The System will not accept new orders or quotes from a restricted acronym or login until the Exchange receives the TPH's manual notification (in a form and manner determined by the Exchange, which will be announced by Regulatory Circular) to reactivate its ability to send orders and quotes for the acronym or login. While an acronym or login is restricted, a TPH may continue to interact with any resting orders (i.e., orders not cancelled pursuant to the kill switch) entered prior to its acronym or login becoming restricted, including receiving trade execution reports and canceling resting orders. The proposed kill switch will provide TPHs with a powerful risk management tool for immediate control of their order and quote activity. It will offer TPHs a means to control their exposure through an interface not dependent on the integrity of their own systems, should they experience any type of system failure. This is similar to how other options exchanges have implemented kill switches, and the Exchange believes this functionality will likewise benefit TPHs.<sup>43</sup>

#### QRM Mechanism

The proposed rule change amends the QRM mechanism in Rule 8.18. QRM is functionality that automatically cancels a Market-Maker's quotes when certain parameter settings are triggered. Specifically, a Market-Maker may establish a (1) maximum number of contracts, (2) a maximum cumulative percentage of the original quoted size of

<sup>43 &</sup>lt;u>See, e.g.</u>, BOX Options Exchange LLC ("BOX") Rule 7280 and PHLX Rule 1019(b).

each side of each series, and (3) the maximum number of series for which either side of the quote is fully traded that may trade within a rolling time period in milliseconds also established by the Market-Maker. When these parameters are exceeded within the time interval, the System cancels the Market-Maker's quotes in the class and other classes with the same underlying on the same trading platform. Additionally, Rule 8.18 allows Market-Makers or TPH organizations to specify a maximum number of QRM incidents on an Exchange-wide basis. If the Market-Maker or TPH organization exceeds this number of incidents within a specified time interval, the System will cancel all of the Market-Maker's or TPH organization's quotes and resting orders in all classes and prevent it from sending additional quotes or orders to the Exchange until it reactivates this ability.

This functionality allows Market-Makers to provide liquidity across potentially hundreds of options series without being at risk of executing the full cumulative size of all these quotes before being given adequate opportunity to adjust their quotes. Use of this functionality has been voluntary for Market-Makers under the rules. From a technical perspective, Market-Makers currently do not need to enter any values into the applicable fields, and thus effectively can choose not to use these tools. The Exchange proposes to amend Rule 8.18 to make it mandatory for Market-Makers to enter values for each parameter for all classes in which it enters quotes. The purpose of the proposed rule change is to prevent Market-Makers from inadvertently entering quotes without risk-management parameters. The Exchange notes all Market-Makers currently have settings for these parameters. However, it is possible that a Market-Maker could inadvertently enter quotes without populating one or more of the parameters, resulting in the Market-

Maker being exposed to much more risk than it intended. The proposed rule change will prevent this from occurring.

While entering values for the QRM parameters will be mandatory to prevent inadvertent exposure to risk, the Exchange notes Market-Makers who prefer to use their own risk-management systems can enter values that assure the Exchange parameters will not be triggered.<sup>44</sup> Accordingly, the proposed rule change provides Market-Makers with flexibility to use their own risk management tools. The Exchange notes other exchanges make similar functionality mandatory for all Market-Makers.<sup>45</sup>

# Order of Application of Risk Controls/Price Protections

Upon approval of this rule filing, the Exchange will have various risk controls and price protection mechanisms in place applicable to quotes and orders. The following lists the "order" in which the System will apply these controls and mechanisms to incoming quotes and orders:

#### **Incoming Quotes:**

- maximum contract size (proposed Rule 6.14(e));
- put/call check (current Rule 6.14(a), as proposed to be amended by this rule filing);
- execution of quotes that lock or cross the NBBO (current Rule 6.14(b)(iii), proposed to be moved to proposed Rule 6.14(c) in this rule filing); and
- quote inverting NBBO (current Rule 6.14(b), as proposed to be amended by this rule filing).

For example, a Market-Maker could set the value for the total number of contracts executed in a class at a level exceeding the total number of contracts it actually quotes in the class.

See, e.g., ISE Rule 804(g).

Note QRM may be triggered after a quote executes.

# **Incoming Simple Limit Orders:**

- maximum contract size (proposed Rule 6.14(e));
- put/call check (current Rule 6.14(a), as proposed to be amended by this rule filing)<sup>46</sup>; and
- limit order price parameter (current Rule 6.12(a)(3), as proposed to be amended by this rule filing).

Note the order entry, execution and price parameter rate checks in proposed Rule 6.14(d) and the drill through price check parameter in current Rule 6.13(b)(v) (as proposed to be amended by and moved to proposed Rule 6.13(b)(v)(B) in this rule filing) may be triggered after a limit order executes.

# **Incoming Simple Market Orders:**

- maximum contract size (proposed Rule 6.14(e));
- market-width price check parameter (current Rule 6.13(b)(v), as proposed to be amended (nonsubstantively) by this rule filing and moved to proposed Rule 6.13(b)(v)(A)); and
- put/call check (current Rule 6.14(a), as proposed to be amended by this rule filing).<sup>47</sup>

If a limit order is an order marked to cancel and replace a resting limit order, the maximum contract size check applies after the put/call check. Generally, cancel and replace orders do not modify the size of a resting order, which the System would have already determined did not exceed the TPH's maximum contract size parameter. Therefore, the Exchange believed it was reasonable to apply a price reasonability check to these orders first, as that is the order information likely being changed.

The pricing checks always apply after the maximum size check for market orders, because they apply at the time the System determines at what price these orders will execute, unlike limit orders entered with an execution price.

### **Incoming Complex Orders:**

- maximum contract size (proposed Rule 6.14(e));
- limit order price parameter (current Rule 6.12(a)(4) and (5));
- debit/credit check (current Rule 6.53C, Interpretation and Policy .08(c)) or buy-buy (sell-sell) strategy parameter (current Rule 6.53C, Interpretation and Policy .08(d)), as applicable;
- maximum value acceptable price range check (current Rule 6.53C, Interpretation and Policy .08(g));
- market width parameter (current Rule 6.53C, Interpretation and Policy .08(a));
- credit-to-debit parameter (current Rule 6.53C, Interpretation and Policy .08(b));
- percentage distance parameter (current Rule 6.53C, Interpretation and Policy .08(e)); and
- stock-option derived net market parameter (current Rule 6.53C, Interpretation and Policy .08(f)).

Note the order entry, execution and price parameter rate checks in proposed Rule 6.14(d) and the drill through price check parameter in current Rule 6.13(b)(v) (as proposed to be amended by and moved to proposed Rule 6.13(b)(v)(B) in this rule filing) may be triggered after a market order executes.

#### (b) <u>Statutory Basis</u>

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the "Act") and the rules and regulations thereunder applicable to

the Exchange and, in particular, the requirements of Section 6(b) of the Act. 48 Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>49</sup> requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>50</sup> requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the proposed price protection mechanisms and risk controls will protect investors and the public interest and maintain fair and orderly markets by mitigating potential risks associated with market participants entering orders and quotes at unintended prices or sizes, and risks associated with orders and quotes trading at prices that are extreme and potentially erroneous, which may likely have resulted from human or operational error.

The Exchange believes amending the limit order price parameter for simple orders (current Rule 6.12(a)(3)) to use the NBBO (rather than the Exchange previous day's closing price or BBO) when available perfects the mechanism of a free and open market and a national market system because it would more accurately reflect the then-

<sup>&</sup>lt;sup>48</sup> 15 U.S.C. 78f(b).

<sup>&</sup>lt;sup>49</sup> 15 U.S.C. 78f(b)(5).

<sup>50</sup> Id.

current market. Thus, the Exchange believes it would be a better measure to use for purposes of determining the reasonability of the prices of orders and more accurately prevent executions of limit orders at erroneous prices, which ultimately protects investors. Continued use of the Exchange's previous day's closing price or BBO, as applicable, when no NBBO is available or the NBBO is not reliable will still provide continued price protection for orders during those times. The Exchange believes those prices would be the most relevant pricing information to determine the price at which an investor may want to buy or sell within a series, and the Exchange believes it is a reasonable substitute when no NBBO is available. The Exchange believes it is appropriate to have flexibility to determine to apply a different ATD to orders entered during the pre-opening, a trading rotation, or a trading halt to reflect different market conditions during those times. Additionally, the Exchange believes it is appropriate to not apply this price check to orders routed from a PAR workstation or OMT, as those orders were subject to manual handling by a PAR or OMT operator who will have evaluated the price of an order based on then-existing market condition prior to submitted it for electronic execution, thus minimizing risk of an erroneous execution. Additionally, the Exchange believes it is appropriate to not apply the check to orders with a stop contingency, because the prices that trigger execution of orders with a stop condition are intended to be outside the NBBO, and nonapplicability of this check is consistent with that condition. Therefore, the Exchange believes it is unnecessary to apply this check to stop-limit orders. This flexibility and non-applicability, as applicable, will further assist the Exchange with its efforts to maintain a fair and orderly market, which will ultimately protect investors. Application of the drill through check to market and marketable limit orders (and of the market width check only to market orders) is consistent with the current Rule and applicability of those checks; the proposed rule change merely deletes the Exchange's flexibility to apply each check to market orders, marketable limit orders, or both.

The proposed rule change to the drill through price check parameter (current Rule 6.13(b)(v), and proposed Rule 6.13(b)(v)(B)) will benefit investors, as it more clearly describes how the System handles orders that were and were not previously exposed prior to trading at the drill through price. Additionally, the proposed rule change adds functionality to the drill through price check parameter to rest orders (or any remaining unexecuted portions) in the book for a brief time period (not to exceed three seconds) with a price equal to the drill through price promotes just and equitable principles of trade and benefits investors by providing an additional opportunity for execution at a price that does not appear to be erroneous prior to their cancellation while continuing to protect them against execution at erroneous prices. Excluding orders that by their terms cancel if they do not immediately execute from this proposed change is consistent with the terms In addition, the proposed rule change to apply the drill through of those orders. protection to orders eligible for SAL will prevent erroneous executions of more orders, which assists the Exchange in its efforts to maintain a fair and orderly market. The proposed rule change also clarifies an order will HAL at the better of the drill through price to ensure an order will not be exposed at a price worse than the NBBO (this is consistent with the current HAL rule, which exposes orders at the NBBO).

The proposed rule change to permit the Exchange to share TPH-designated risk settings with Clearing TPHs that clear transactions on the TPH's behalf (proposed

introductory paragraph to Rule 6.14) will permit Clearing TPHs who have a financial interest in the risk settings of TPHs with whom they have entered into a letter of authorization, letter of guarantee, or authorization given by such Clearing TPHs to such TPH to better monitor and manage the potential risks assumed by Clearing TPHs. Because such Clearing TPHs bear the risk associated with Exchange transactions of that TPH, it is appropriate for the Clearing TPHs to have knowledge of what risk settings the TPH may apply within the System. This knowledge will provide Clearing TPHs with greater control and flexibility in managing their own risk tolerance and exposure and aiding Clearing TPHs in complying with the Act. Additionally, to the extent a Clearing TPH might reasonably require a TPH to provide access to its risk settings as a prerequisite to continuing to clear trades on such TPH's behalf, the Exchange's proposed rule change to share those risk settings directly with a Clearing TPH reduces the administrative burden on the TPH and ensures that Clearing TPHs are receiving information that is up to date and conforms to settings active in the System. The Exchange also notes the proposed rule change is consistent with rules of other exchanges.<sup>51</sup>

The proposed rule change to expand the applicability of the put strike price and call underlying value check to market orders (current Rule 6.14(a)) will further assist the Exchange's efforts to maintain a fair and orderly market by mitigating the potential risks associated with additional orders trading at prices that exceed a corresponding benchmark (which may result in executions at prices that are potentially erroneous). The Exchange believes it is appropriate and consistent with the current rule to no longer have flexibility

<sup>51 &</sup>lt;u>See, e.g.</u>, MIAX Rule 500; BX Chapter VI, Section 20; NYSE Arca Rule 6.2A(a); NYSE MKT Rule 902.1NY(a); and PHLX Rule 1016.

to determine to not apply the call check to orders entered during Extended Trading Hours, as the check currently does not apply during that trading session and does not expect to do so. Similarly, the Exchange believes it promotes fair and orderly markets to not apply these checks to market orders executed during an opening rotation to avoid impacting the determination of the opening price (the Exchange notes separate price protections apply to orders during the opening process).

The proposed rule change to the quote inverting NBBO check (current Rule 6.14(b)) benefits investors by clarifying the System does not apply those checks to orders entered when there is no NBBO (or BBO with respect to the quote inverting NBBO check) available, as there is no reliable benchmark during those times against which the System can compare quote prices. This will remove impediments to and perfect the mechanism of a free and open market because these checks would not apply to quotes during times when there is no reliable price benchmark, and thus the check would not erroneously reject otherwise acceptable quotes, which may be disruptive to Market-Makers that provide necessary liquidity to the Exchange. The proposed rule change to delete the Exchange's flexibility regarding when to apply the quote inverting NBBO check and instead state in the Rules it will not apply prior to a series opening if the series is not open on another exchange, and it will not apply during a trading halt is appropriate and consistent with the current rule. The Exchange currently does not apply the check to quotes entered during a halt and does not expect to do so. With respect to quotes entered in series prior to the opening, the Exchange believes it is appropriate to not apply the check if a series is not yet open on another exchange to avoid rejecting quotes that may be consistent with market pricing not yet available in the System.

The proposed changes to the execution of quotes that lock or cross the NBBO (current Rule 6.14(b)(iii) and proposed Rule 6.14(c)) to reject incoming quotes when a Market-Maker quote represents the BBO (and the Exchange has established a counting period pursuant to its quote lock functionality), which is also the NBBO (along with an away exchange), is consistent with the Options Linkage Plan and related rules, as it will prevent dissemination of a quote that locks or crosses an away market. The proposed rule change to allow the Exchange not to apply the execution of quotes that lock or cross the NBBO check in the interest of maintaining a fair and orderly market will allow the Exchange to disable this check in response to a market event or market volatility to avoid inadvertently cancelling quotes not erroneously priced but rather priced to reflect potentially rapidly changing prices, which will assist with the maintenance of a fair and orderly market.

The Exchange believes the proposed order entry, execution and price parameter rate checks (proposed Rule 6.14(d)) will assist with the maintenance of a fair and orderly market by establishing new activity based risk protections for orders. The Exchange currently offers QRM, a risk protection mechanism for Market-Maker quotes, which the Exchange believes has been successful in reducing Market-Maker risk, and now proposes to adopt risk protections for orders that would allow other TPHs to similarly manage their exposure to excessive risk. In particular, the proposed rule change implements four new risk protections based on order entry and execution rates as well as rates of orders that trigger the drill through or price reasonability parameters. The Exchange believes these new protections would enable TPHs to better manage their risk when trading on the Exchange by limiting their risk exposure when systems or other issues result in orders

being entered or executed, as well as executed at extreme prices, at rates that exceed predefined thresholds. In today's market, the Exchange believes robust risk management is becoming increasingly more important for all TPHs. The proposed rule change would provide an additional layer or risk protection for TPHs. In particular, these rate checks are designed to reduce risk associated with system errors or market events that may cause TPHs to send a large number of orders, receive multiple, automatic executions, or execute a large number of orders at extreme and potentially erroneous prices, before they can adjust their exposure in the market. The proposed order entry and execution rate checks are similar to risk management functionality provided by other options exchanges.<sup>52</sup> While the order entry and contracts executed rate checks apply to all TPHs, it is optional for TPHs to have resting orders (or certain subcategories of resting orders) cancelled when a rate check is triggered and an acronym or login becomes restricted.

The proposed maximum contract size risk control (proposed Rule 6.14(e)) is designed to help TPHs avoid potential submission of erroneously sized orders on the Exchange. Similar to functionality intended to protect against orders and quotes executing at unintended prices, this proposed functionality will assist in the maintenance of a fair and orderly market and protect investors by rejecting orders and quotes that are "too large" to prevent executions at unintended sizes and mitigate risks associated with such executions that are potentially erroneous. The Exchange believes the additional risk control feature to reject or cancel the resting or quote when an incoming replacement order or quote update is rejected pursuant to this proposed risk control is appropriate because, by submitting a replacement order or quote update, the TPH is implicitly

<sup>&</sup>lt;sup>52</sup> See, e.g., ISE Rule 714(d) and MIAX Rule 519A.

instructing the Exchange to cancel the resting order or quote, respectively. Additionally, the Exchange believes it is appropriate to reject or cancel, as applicable, both sides of a quote because Market-Makers generally submit two-sided quotes, as their trading strategies and risk profiles are based on spreads of their quotes, and rejecting and cancelling, as applicable, both sides of a quote is consistent with this practice. The Exchange believes cancellation of resting quotes and orders, and rejection of both sides of a quote, operate as additional safeguards that cause TPHs to re-evaluate orders and quotes before attempting to submit new orders or quotes. This will further protect against erroneous trades, which protects investors. The Exchange also believes the proposed rule change regarding how the proposed check will apply to AIM, SAM and QCC orders is reasonable, as the proposed rule change is consistent with the contingencies attached to those types of orders.

With respect to the proposed order entry, execution and price parameter rate checks and maximum contract size check (as well as the existing QRM functionality), the Exchange believes it is appropriate to not have minimum or maximum values, or default values, for the parameters, to provide sufficient flexibility to TPHs to adjust their parameter inputs in accordance with their business and risk management needs. The Exchange believes price protection mechanisms benefits its market and the options industry as a whole, however, ultimately these mechanisms primarily protect TPHs against erroneous executions of their orders and quotes. CBOE appreciates the parameter settings determine whether these protections will be meaningful. Based on discussions with TPHs regarding its current and proposed package of risk controls and price protection mechanisms, the Exchange understands TPHs support the implementation of

price protection mechanisms such as these and expects TPHs to input settings that are meaningful so they can take full advantage of the benefits these mechanisms are intended to provide.

The proposed kill switch (proposed Rule 6.14(f)) is an optional tool offered to all TPHs. The Exchange represents the proposed kill switch will operate consistently with the firm quote obligations of a broker-dealer pursuant to Rule 602 of Regulation NMS and the functionality is not mandatory. Specifically, any interest executable against a TPH's quotes and orders received by the Exchange prior to the time the kill switch is processed by the Exchange will automatically execute at the price up to the TPH's size. The kill switch message will be accepted by the System in the order of receipt in the queue and will be processed in that order so that interest already in the System will be processed prior to the kill switch message. A Market-Maker's utilization of the kill switch, and subsequent removal of its quotes, does not diminish or relieve the Market-Maker of its obligation to provide continuous two-sided quotes. Market-Makers will continue to be required to provide continuous two-sided quotes on a daily basis, and a Market-Maker's utilization of the kill switch will not prohibit the Exchange from taking disciplinary action against the Market-Maker for failing to meet the continuing quoting obligation each trading day. All TPHs may determine whether a kill switch cancels resting quotes, resting orders (or certain subcategories of resting orders), or both. The Exchange also notes the proposed rule change is consistent with rules of other exchanges.<sup>53</sup>

<sup>53 &</sup>lt;u>See, e.g.</u>, BOX Rule 7280 (b) and PHLX Rule 1019(b).

The Exchange believes requiring Market-Makers to enter values into the risk parameters of the QRM mechanism (current Rule 8.18) will not be unreasonably burdensome, as all Market-Makers currently utilize the functionality. Additionally, the proposed rule change will assist Market-Makers in reducing their risk of inadvertently entering quotes without populating the risk parameters. Reducing this risk will enable Market-Makers to enter quotations with larger size, which in turn will benefit investors through increased liquidity for the execution of their orders. Such increased liquidity benefits investors because they receive better prices and because it lowers volatility in the options market.

While entering values for the QRM parameters will be mandatory to prevent inadvertent exposure to risk, the Exchange notes Market-Makers who prefer to use their own risk-management systems can enter values that assure the Exchange parameters will not be triggered. Accordingly, the proposed rule change provides Market-Makers with flexibility to use their own risk management tools. The Exchange notes other exchanges make similar functionality mandatory for all Market-Makers.<sup>54</sup>

The individual firm benefits of enhanced risk protections flow downstream to counterparties both at the Exchange and at other options exchanges, which increases systemic protections as well. The Exchange believes these risk protections will allow TPHs to enter orders and quotes with reduced fear of inadvertent exposure to excessive risk, which will benefit investors through increased liquidity for the execution of their orders, thereby protecting investors and the public interest. Without adequate risk management tools, such as those proposed in this filing, TPHs could reduce the amount

<sup>54 &</sup>lt;u>See, e.g.</u>, ISE Rule 804(g).

of order flow and liquidity they provide. Such actions may undermine the quality of the markets available to customers and other market participants. Accordingly, the proposed rule change is designed to encourage TPHs to submit additional order flow and liquidity to the Exchange, thereby removing impediments to and perfecting the mechanisms of a free and open market and a national market system and, in general, protecting investors and the public interest. In addition, providing TPHs with more tools for managing risk will facilitate transactions in securities because, as noted above, TPHs will have more confidence protections are in place that reduce the risks from potential system errors and market events. As a result, the new functionality as the potential to promote just and equitable principles of trade.

The Exchange notes TPHs must be mindful of their obligations to seek best execution of orders handled on an agency basis. Decisions to use the optional functionality described in this filing (i.e., cancellation of orders when an acronym or login becomes restricted after exceeding the orders entered or contracts executed rate, cancellation of orders upon initiation of a kill switch), and decisions on values of parameters (i.e., parameters for the orders entered, contracts executed and price parameter rate check, maximum contract size check), must be made consistent with this duty.

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

CBOE 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 proposed rule change adds price protection mechanisms and risk controls for orders and quotes of all Trading Permit Holders submitted to CBOE to help further prevent potentially erroneous executions, which benefits all market participants. These

mechanisms and controls apply to orders of all TPHs, and quotes of all Market-Makers, in the same manner. The proposed rule changes related to the quote inverting NBBO check, the execution of quotes that lock or cross the NBBO check, and QRM apply only to Market-Makers because only Market-Makers may submit quotes under the Rules, and because similar protections applicable to orders are in place or also proposed in this rule filing. Additionally, the Exchange believes these types of protection for Market-Makers are appropriate given their unique role in the market and may encourage Market-Makers to quote tighter and deeper markets, which will increase liquidity and enhance competition, given the additional protection these price checks will provide. The Exchange believes the proposed rule change would provide market participants with additional protection from risks related to erroneous executions. Certain of the proposed protections are similar to those available on other exchanges.<sup>55</sup>

While the proposed rule change makes entry of parameters into the QRM mechanism mandatory, the Exchange notes all Market-Makers currently avail themselves of this mechanism today. Additionally, the Exchange believes the use of QRM will prevent the inadvertent entry of quotes without risk-management parameters. Market-Makers who prefer to use their own risk-management systems can enter out-of-range values so the Exchange-provided parameters will not be triggered and can function as back-up protection. While entering values for the QRM parameters will be mandatory to prevent inadvertent exposure to risk, the Exchange notes Market-Makers who prefer to use their own risk-management systems can enter values that assure the Exchange parameters will not be triggered. Accordingly, the proposed rule change provides

<sup>55 &</sup>lt;u>See, e.g.</u>, ISE Rule 714(d) and MIAX Rule 519A (order entry and execution rate checks); and MIAX Rule 519(b) (order contract size).

Market-Makers with flexibility to use their own risk management tools. The Exchange notes other exchanges make similar functionality mandatory for all Market-Makers.<sup>56</sup>

With respect to the proposed kill switch functionality, all TPHs may avail themselves of the kill switch, which functionality is optional. The proposed rule change is intended to protect TPHs in the event they experience a systems issue or unusual or unexpected market activity that would require them to withdraw from the market to protect investors. The ability to control risk at either the acronym or login level will permit a TPH to protect itself from inadvertent exposure to excessive risk at each level. Reducing such risk will enable TPHs to enter quotes and orders with protection against inadvertent exposure to excessive risk, which in turn will benefit investors through increased liquidity for the execution of their orders. Such increased liquidity benefits investors because they may receive better prices and because it may lower volatility in the options market. Additionally, the proposed kill switch functionality is similar to that available on other exchanges.<sup>57</sup>

The proposed rule change to permit the Exchange to share TPH-designated risk settings with Clearing TPHs that clear transaction on behalf of the TPH is not designed to address any competitive issues and does not pose any undue burden on non-Clearing TPHs because, unlike Clearing TPHs, non-Clearing TPHs do not guarantee the execution of transactions on the Exchange. The proposed rule change applies the same to all TPHs and Clearing TPHs. Any TPH that does not wish to have the Exchange share designated risk settings with its Clearing TPHs could avoid this by becoming a clearing member of

<sup>&</sup>lt;sup>56</sup> <u>See, e.g.</u>, ISE Rule 804(g).

<sup>57 &</sup>lt;u>See, e.g.</u>, BOX Rule 7280(b) and PHLX Rule 1019(b).

the Clearing Corporation. The Exchange notes other exchanges' rules permit sharing of these settings with clearing members.<sup>58</sup>

The individual firm benefits of enhanced risk protections flow downstream to counterparties both at the Exchange and at other options exchanges, which increases systemic protections as well. The Exchange believes these risk protections will allow TPHs to enter orders and quotes with reduced fear of inadvertent exposure to excessive risk, which will benefit investors through increased liquidity for the execution of their orders. Without adequate risk management tools, such as those proposed in this filing, TPHs could reduce the amount of order flow and liquidity they provide. Such actions may undermine the quality of the markets available to customers and other market participants. Accordingly, the proposed rule change is designed to encourage TPHs to submit additional order flow and liquidity to the Exchange, which may ultimately promote competition. In addition, providing TPHs with more tools for managing risk will facilitate transactions in securities because, as noted above, TPHs will have more confidence protections are in place that reduce the risks from potential system errors and market events.

Based on discussions with TPHs regarding its current and proposed package of risk controls and price protection mechanisms, the Exchange understands TPHs support the implementation of price protection mechanisms such as these and expects TPHs to input settings that are meaningful so they can take full advantage of the benefits these mechanisms are intended to provide.

See, e.g., MIAX Rule 500; BOX Chapter VI, Section 20; NYSE Arca Rule 6.2A(a); NYSE MKT Rule 901.1NY(a); and PHLX Rule 1016 (sharing TPH-designated risk settings).

# Item 5. <u>Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others</u>

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

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

CBOE does not consent to an extension of the time period for Securities and Exchange Commission (the "Commission") action on the proposed rule change specified in Section 19(b)(2) of the Act.<sup>59</sup>

# Item 7. <u>Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2) or Section 19(b)(7)(D)</u>

Not applicable.

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

The proposed rule change to permit the Exchange to share TPH-designated risk settings with other TPHs that clear transactions on the TPH's behalf is substantially the same as MIAX Rule 500; BX Chapter VI, Section 20; NYSE Arca Rule 6.2A(a); NYSE MKT Rule 902.1NY(a); and PHLX Rule 1016.

The proposed order entry and contract execution checks (proposed Rule 6.14(d)(i)(A) and (B)) are substantially similar to those in ISE Rule 714(d) and MIAX Rule 519A. ISE Rule 714(d) differs from the proposed rule change as follows:

- ISE establishes default values for the parameters, while CBOE will not.
- ISE permits its members to maintain the counting programs across its affiliated exchanges (ISE and ISE Gemini), while CBOE will not.

<sup>&</sup>lt;sup>59</sup> 15 U.S.C. 78s(b)(2).

- ISE has separate counts for simple orders, complex orders and stockoption orders, while CBOE will have a single count for all order types.
- CBOE's proposed rule specifies the proposed rate checks apply to auction responses, while ISE's rule is silent on auction responses. Additionally, CBOE's proposed rule notes how the proposed check will apply to orders from PAR and OMT terminals, which are CBOE-specific.
- ISE rejects orders subsequent to a member exceeding one of its parameters, while CBOE will reject orders and quotes, and cancel resting quotes, if the TPH is a Market-Maker. Additionally, CBOE will provide TPHs with three options of which resting orders to cancel (if the TPH elects to use this functionality) if the mechanism is triggered, while ISE will cancel all orders (if the member employs that functionality).
- CBOE's proposed rule allows TPHs to set parameters at the acronym or login level.
- CBOE will establish the time intervals while ISE allows members to establish the time interval, subject to a maximum duration established by ISE.

MIAX Rule 519A differs from the proposed rule change as follows:

- CBOE's proposed rule specifies the proposed rate checks apply to auction responses, while MIAX's rule is silent on auction responses. Additionally, CBOE's proposed rule notes how the proposed check will apply to orders from PAR and OMT terminals, which are CBOE-specific.
- MIAX rejects orders subsequent to a member exceeding one of its parameters, while CBOE will reject orders and quotes, and cancel resting quotes,

if the TPH is a Market-Maker. Additionally, CBOE will provide TPHs with three options of which resting orders to cancel (if the TPH elects to use this functionality) if the mechanism is triggered, while MIAX will cancel all day orders (if the member employs that functionality).

- CBOE's proposed rule allows TPHs to set parameters at the acronym or login level.
- CBOE will establish the time intervals while MIAX allows members to establish the time interval, subject to a maximum duration established by MIAX.

The Exchange does not believe these differences are substantial, as the proposed functionality to block a TPH from submitting orders after its order entry or execution rate exceeds the TPH-designated parameter is generally the same as that of MIAX and ISE. The above-listed differences relate primarily to varying levels of flexibility each exchange provides its members and the scope of the mechanisms' applicability.

The proposed maximum contract size check (proposed Rule 6.14(e)) is substantially similar to MIAX Rule 519(b). MIAX Rule 519(b) differs from the proposed rule change as follows:

- The proposed rule change applies the proposed protection to orders and quotes, while MIAX's protection applies only to orders. Additionally, the proposed rule change will provide for separate parameters for simple orders, complex orders and quotes, while MIAX has a parameter for all orders.
- MIAX sets a default maximum order size if a member does not designate
  one, while CBOE will require TPHs to designate a maximum contract size and
  will not set a default.

- MIAX permits its members to apply the protection at the member or firm level, while CBOE will allow TPHs to apply the proposed protection at the acronym or login level.
- The proposed rule change will also cancel resting orders and quotes of a TPH if an order or quote exceeds the maximum contract size, while MIAX's rules do not state whether this would occur.
- The proposed rule change states how the check will apply to paired orders, while MIAX's rule is silent on how its check applies to paired orders.

The Exchange does not believe these differences are substantial, as the proposed functionality to reject orders that exceed the TPH-designated maximum size is generally the same as that of MIAX. The above-listed differences relate primarily to varying levels of flexibility each exchange provides its members and the scope of the mechanisms' applicability.

The proposed kill switch functionality (proposed Rule 6.14(f)) is substantially similar to BOX Rule 7280, except:

- BOX's rule allows participants to specify an underlying security, class or account type when initiating a kill switch, while CBOE's proposed rule does not provide this flexibility; and
- BOX's rule allows participants to specify a lock-out instruction, while CBOE's proposed rule provides TPH's will automatically be locked out.

The proposed kill switch functionality is also substantially similar to PHLX Rule 1019(b), except:

- PHLX's rule provides flexibility to initiate a kill switch at the user or group level while CBOE's proposed rule provides flexibility to initiate a kill switch at the acronym or login level;
- PHLX's rule states a member will not be able to enter quotes if it requests removal of quotes and orders if it requests removal of orders, while CBOE's proposed rule provides a TPH will not be able to enter quotes or orders, even if it only requests removal of either quotes or orders; and
- PHLX's rule allows clearing members to be notified of a member's reentry into the system following a kill switch, which CBOE's rules do not.

The Exchange does not believe these differences are substantial, as the proposed kill switch functionality is generally the same as that of BOX and PHLX. The above-listed differences relate primarily to varying levels of flexibility each exchange provides its members and the scope of the kill switch's applicability. The PHLX provision relating to the sharing of a member's re-entry following a kill switch with a clearing member does not affect the kill switch functionality.

The proposed rule change to require Market-Makers to establish parameters in the QRM mechanism (current Rule 8.18) is the same as ISE Rule 804(g). CBOE notes ISE's quote protection mechanism provides different parameters than QRM and allows market-makers to set parameters across affiliated exchanges. However, ISE's rule requires market-makers to establish those parameters in the same manner as this proposed rule change.

## Item 9. <u>Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act</u>

Not applicable.

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

Not applicable.

### Item 11. <u>Exhibits</u>

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

Exhibit 5. Proposed rule text.

### EXHIBIT 1

#### SECURITIES AND EXCHANGE COMMISSION

[Release No. 34- ; File No. SR-CBOE-2016-053]

[Insert date]

Self-Regulatory Organizations; Chicago Board Options Exchange, Incorporated; Notice of Filing of a Proposed Rule Change Relating to Price Protection Mechanisms and Risk Controls

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

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

The Exchange proposes to enhance current and adopt new price protection mechanisms and risk controls for orders and quotes.

The text of the proposed rule change is available on the Exchange's website (<a href="http://www.cboe.com/AboutCBOE/CBOELegalRegulatoryHome.aspx">http://www.cboe.com/AboutCBOE/CBOELegalRegulatoryHome.aspx</a>), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

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

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

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

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

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

### 1. <u>Purpose</u>

The Exchange has in place various price check mechanisms and risk controls that are designed to prevent incoming orders and quotes from automatically executing at potentially erroneous prices or to assist Trading Permit Holders ("TPHs") with managing their risk.<sup>3</sup> These mechanisms and controls are designed to help maintain a fair and orderly market by mitigating potential risks associated with orders trading at prices that are extreme and potentially erroneous, or in extremely large and potentially erroneous volumes, that may be harmful to market participants. The Exchange proposes to amend Rules 6.12(a)(3), 6.13(b)(v), 6.14 and 8.18 to add new, as well as enhance current, price protection mechanisms and risk controls to further prevent potentially harmful and disruptive trading.<sup>4</sup>

See, e.g., Rule 6.12(a)(3) through (5) (limit order price parameters), 6.13(b)(v) (market-width and drill through price check parameters), 6.14 (price protections), 6.53C, Interpretation and Policy .08 (price check parameters for complex orders), and 8.18 (Quote Risk Monitor Mechanism ("QRM")).

The proposed rule change makes conforming changes to other rules, as further discussed below.

### Limit Order Price Parameter for Simple Orders

The proposed rule change amends the limit order price parameter for simple orders in Rule 6.12(a)(3). This price parameter currently states simple limit orders will route directly from an order entry firm to an order management terminal ("OMT") designated by the order entry firm when initially routed to the Exchange if:

- prior to the opening of a series (including before a series is opened following a halt), the order is to buy (sell) at more than an acceptable tick distance ("ATD") above (below) the Exchange's previous day's close; however, this does not apply to CBOE or away market-makers; or
- once a series has opened, the order is to buy (sell) at more than an acceptable tick distance above (below) the disseminated Exchange offer (bid).

The proposed rule change states the System rejects back to a TPH an order to buy (sell) at more than an acceptable tick distance above (below) if:

• prior to the opening of a series (including during any pre-opening period and opening rotation), (1) the last disseminated national best offer ("NBO") (national best bid ("NBB")), if a series is open on another exchange(s), or (2) the Exchange's previous day's closing price, if a series is not yet open on any other exchange; if the NBBO is locked, crossed or unavailable<sup>5</sup>; or if there is no NBO (NBB) and the previous day's closing price is greater (less) than or equal to the NBB (NBO). However, this does not apply to orders of CBOE or away market-makers; if there is no

<sup>&</sup>lt;sup>5</sup> If the NBBO (or BBO) is not currently being disseminated, the NBBO (or BBO) will be considered "unavailable."

NBO (NBB) and the Exchange's previous day's closing price is less (greater) than the NBB (NBO); or if there is no NBBO and no Exchange previous day's closing price;

- intraday, the last disseminated NBO (NBB), or the Exchange's best offer
   (bid) if the NBBO is locked, crossed or unavailable. However, this does
   not apply if there is no NBBO and no Exchange best bid or offer ("BBO");
   or
- during a trading halt (including during any pre-opening period or opening rotation prior to re-opening following the halt), the last disseminated NBO (NBB). However, this does not apply to a buy (sell) order if the NBBO is locked, crossed or unavailable or if there is no NBO (NBB).

Prior to a series opening on CBOE, the series may already be open on another exchange(s), in which case that exchange(s) would be disseminating an NBBO. The NBBO would more accurately reflect the then-current market, rather than the previous day's closing price, and thus the Exchange believes it would be a better measure to use for purposes of determining the reasonability of the prices of orders. If the series is not yet open on any other exchange, the System will continue to use the Exchange's previous day's closing price as the comparison figure. Additionally, the System will use the Exchange's previous day's closing price if the NBBO is locked, crossed or unavailable (and thus unreliable) or if there is no NBO (NBB) and the Exchange's previous day's closing price is greater (less) than or equal to the NBB (NBO). The check will continue to not apply to orders of CBOE or away market-makers, and will also not apply to orders entered when there is no NBO (NBB) and the Exchange's previous day's closing price is

less (greater) than the NBB (NBO) or if there is no NBBO and no Exchange previous day's closing price (for example, if the order is in a newly listed series) (and thus no reliable measure against which to compare the price of the order to determine its reasonability). Prior to the opening of a series, and the NBBO is unavailable, the previous day's closing price is the most relevant pricing information to determine the price at which an investor may want to buy or sell within a series, and the Exchange believes it is a reasonable substitute for the NBB or NBO when not available. With respect to the proposed provisions regarding the applicability of the check when there is no NBO (NBB) against which the price of the buy (sell) order can be compared to determine price reasonability, the Exchange believes using the previous day's closing price is appropriate if that price is greater (less) than or equal to the NBB (NBO) because it does not cross the disseminated NBB (NBO). On the contrary, if that price is less (greater) than the NBB (NBO), and thus would cross the disseminated NBB (NBO), the Exchange believes that closing price is too far away from what an NBO (NBB) would be if an offer (bid) quote or sell (buy) order were to be entered and essentially creates a crossed, unreliable market.

Once a series has opened on CBOE, this check will compare the price of a buy (sell) order to the last disseminated NBO (NBB) rather than the Exchange best offer (bid). The NBBO would more accurately reflect the then-current market, rather than the Exchange BBO, and thus the Exchange believes it would be a better measure to use for purposes of determining the reasonability of the prices of orders. The System will continue to use the Exchange BBO if the NBBO is locked, crossed or unavailable (and thus unreliable). This check will not apply intraday if there is no NBBO and no BBO

(and thus no reliable measure against which to compare the price of the order to determine its reasonability).

With respect to orders entered during a trading halt (including during any preopening period or opening rotation prior to re-opening following a halt), the proposed rule change states the System will use the last disseminated NBO (NBB) rather than the Exchange's previous day's closing price (as the current rule states). If a halt occurs during the trading day, the NBO (NBB) would more accurately reflect the then-current market rather than the previous day's closing price, which would be stale by that time. This check will not apply to orders if the NBBO is locked, crossed or unavailable (and thus unreliable) or if there is no NBO (NBB) (and thus no reliable measure against which to compare the price of the order to determine its reasonability).

The rule currently states the Exchange determines the ATD on a series-by-series<sup>6</sup> and premium basis and will be no less than five minimum increment ticks. The proposed rule change amends the minimum ATD to be two minimum increment ticks rather than five. The Exchange believes it may be appropriate to set the ATD for certain classes (depending on the minimum increment and premium) or during different trading sessions (as further discussed below) to be fewer than five to ensure that the ATD price is not so far away from the market price and thus this price check is effective given the market model or market conditions.<sup>7</sup> Additionally, because market conditions during pre-

The proposed rule change amends this to be class-by-class rather than series-by-series. The Exchange generally sets parameters on a class-by-class basis; however, pursuant to Rule 8.14, Interpretation and Policy .01, if the Exchange authorizes a group of series of a class to trade on the Hybrid Trading System and the remaining groups of series of a class to trade on the Hybrid 3.0 Trading System, the Exchange will establish trading parameters on a group basis rather than class basis.

The Exchange notes Rule 6.13(b)(v) sets the minimum ATD at two minimum

opening periods, trading rotations, and trading halts,<sup>8</sup> are different than those present during regular trading hours, the proposed rule change provides the Exchange with flexibility to apply a different ATD during those times (which the Exchange may want to be less than the current minimum of five). The Exchange believes it is appropriate to have the ability to apply a different ATD during the pre-open period or opening rotation so the check does not impact the Exchange's ability to open an option or determination of the opening price. The Exchange may also want to apply a different ATD during a halt, as pricing during those times may be volatile and inaccurate.<sup>9</sup>

The proposed rule change deletes the Exchange's flexibility to not apply this price parameter to immediate-or-cancel orders, as the Exchange believes these orders are also at risk of execution at extreme and potentially erroneous prices and thus will benefit from applicability of these checks. The proposed rule change states this price parameter will not apply to orders routed from a PAR workstation or OMT. Orders routed from a PAR workstation or OMT are subject to manual handling, so the PAR or OMT operator will have evaluated the price of an order based on then-existing market conditions prior to submitting the order for electronic execution, and thus there is minimal risk of execution at an erroneous price.

increments for the drill through protection.

Pursuant to Rule 6.1A(i), the Exchange may make a determination for Extended Trading Hours different from that made for Regular Trading Hours to the extent the rules allow the Exchange to make a determination, including on a class-by-class basis. Thus, the Exchange may set a different ATD for classes trading during Extended Trading Hours than the ATD set for those classes during Regular Trading Hours.

Note Rule 6.12, Interpretation and Policy .01 permits a senior official on the Exchange Help Desk or two Floor Officials to grant intra-day relief by widening or inactivating one or more of the applicable ATD parameters settings in the interest of a fair and orderly market.

The proposed rule change also states this price parameter does not apply to orders with a stop contingency. By definition, the stop contingency<sup>10</sup> is triggered for a buy order if there is a last sale or bid at or above the stop price and for a sell order if there is a last sale or offer at or below the stop price. As a result, buy orders with a stop contingency are generally submitted at a triggering price that is above the NBO, and sell orders with a stop contingency are generally submitted at a triggering price that is below the NBB. Because these orders are expected to be priced outside the NBBO, the Exchange will not apply this check to not interfere with the application of the stop contingency.<sup>11</sup>

### **Drill Through Price Check Parameter**

The proposed rule change amends the drill through price check parameter in Rule 6.13(b)(v). Currently, the System will not automatically execute a marketable order if the execution would follow an initial partial execution on the Exchange and would be at a subsequent price not within an ATD from the initial execution (determined by the Exchange on a series-by-series and premium basis for market orders and/or marketable limit orders<sup>12</sup>). An ATD may be no less than two minimum increment ticks. If an

<sup>&</sup>lt;sup>10</sup> See Rule 6.53.

The proposed rule change also makes nonsubstantive changes to Rule 6.12, including deletion of an extraneous period.

Pursuant to the rule filing proposing this language, the intent of this provision is to allow the Exchange to determine to apply the drill through price check parameter, as well as the market-width price check parameter, to market orders and/or marketable limit orders. See Securities Exchange Act Release No. 34-63191 (October 27, 2010), 75 FR 67411 (November 2, 2010) (SR-CBOE-2010-094) (notice of filing and immediate effectiveness of proposed rule change related to the Hybrid automatic execution feature, including a change to allow CBOE to determine "to apply these price check parameters to market and/or marketable limit orders"). Currently, the Exchange applies the market-width check to market orders and the drill through check to market and marketable limit orders. The proposed rule change merely removes this flexibility from the Rules and

execution is suspended because executing the remaining unexecuted portion of an order would exceed the drill through ATD, then such unexecuted portion will be exposed pursuant to the Hybrid Agency Liaison ("HAL") process in Rule 6.14A using the ATD as the exposure price. If a quantity remains at the conclusion of the HAL process or if the order has already been subject to the HAL process of if the order is not eligible for HAL, the remaining unexecuted quantity will route via the order handling system pursuant to Rule 6.12.

Pursuant to the proposed rule change, the drill through protection functions in a similar manner. The proposed rule change clarifies how the System handles orders that were not exposed prior to trading up to the drill through price and orders that traded up to the drill through price following exposure. Specifically, under the proposed rule change, if a buy (sell) order not yet exposed via HAL partially executes, and the System determines the unexecuted portion would execute at a subsequent price higher (lower) than the price that is an ATD above (below) the NBO (NBB) (the "drill through price"), the System will not automatically execute that portion and will expose<sup>13</sup> that portion via HAL at the better of the NBBO and the drill through price (if eligible for HAL). The Exchange will determine the ATD on a class and premium basis (which may be no less than two minimum increment ticks), <sup>14</sup> which the Exchange will announce via Regulatory Circular. If a buy (sell) order is exposed via HAL (other than pursuant to the previous

codifies the current practice (which is permitted under the current Rule).

The current HAL exposure period is 20 milliseconds.

The proposed rule change amends this to be class-by-class rather than series-by-series. The Exchange generally sets parameters on a class-by-class basis; however, pursuant to Rule 8.14, Interpretation and Policy .01, if the Exchange authorizes a group of series of a class to trade on the Hybrid Trading System and the remaining groups of series of a class to trade on the Hybrid 3.0 Trading System, the Exchange will establish trading parameters on a group basis rather than class basis.

sentence) or the Solicitation Auction Mechanism ("SAL")<sup>15</sup> and, following the exposure period pursuant to Rule 6.14A or 6.13A, respectively, the System determines the order (or any unexecuted portion) would execute at a price higher (lower) than the drill through price, the System will not automatically execute the order (or unexecuted portion).<sup>16</sup>

Under the proposed rule change, rather than route via the order handling system, these orders (or unexecuted portions) will rest in the book (based on the time at which they enter the book for priority purposes) for a time period in milliseconds (which the Exchange will determine and announce via Regulatory Circular and will not exceed three seconds)<sup>17</sup> with a price equal to the drill through price.<sup>18</sup> This time period will provide an additional opportunity for execution for these orders (or unexecuted portions) at a price that does not appear to be erroneous. If the order (or any unexecuted portion) does not execute during that time period, the System cancels it. Buy (sell) orders (or any unexecuted portion) not eligible for HAL or SAL will continue to not automatically execute at a subsequent price higher (lower) than the drill through price and will route it

The proposed rule change expands this to include SAL, a similar price improvement auction the Exchange may activate in classes in which it did not activate HAL. In classes in which SAL is activated, an order eligible for SAL will be exposed immediately and would not partially execute prior to being exposed via SAL. For this reason, SAL is not included in proposed Rule 6.13(v)(B)(I).

The proposed rule change makes corresponding changes to Rules 6.13A and 6.14A to clarify orders (or portions) that do not execute following the applicable exposure process are subject to the drill through price check parameter in proposed Rule 6.13(b)(v)(B). The proposed rule change also amends Rule 6.14A to provide orders (or any unexecuted portions) may initiate a HAL at the better of the drill through price and NBBO and make nonsubstantive changes, including deletion of an extra space and use of plain English.

The Exchange intends to initially set this time period at two seconds.

Any order (or unexecuted portion) that by its terms cancels if it does not execute immediately (including immediate-or-cancel, fill-or-kill, intermarket sweep, and market-maker trade prevention orders) will be cancelled rather than rest in the book for this time period in accordance with the definition of those order types.

via the order handling system pursuant to Rule 6.12 (except orders (or any unexecuted portions) that by their terms cancel if they do not execute immediately (such as immediate-or-cancel, fill-or-kill, intermarket sweep, and market-maker trade prevention orders) will be cancelled). To avoid any confusion, the proposed rule change also clarifies this drill through check does not apply to executions of orders following exposure via HAL at the open pursuant to Rule 6.2B, Interpretation and Policy .03, which instead are subject to a separate drill through protection set forth in that rule.<sup>19</sup>

The following examples illustrate the new functionality to briefly rest orders in the book in connection with the drill through price check parameter:

### Example #1

Suppose CBOE's market for a series in a class with a 0.05 minimum increment is 0.90 – 1.00, represented by a quote for 10 contracts on each side (the quote offer is Quote A). The following sell orders or quote offers also rest in the series: 10 contracts at 1.05 (Order A), 10 contracts at 1.10 (Quote B), 10 contracts at 1.15 (Order B), and 100 contracts at 1.20 (Order C). The market for away exchanges is 0.80 – 1.25. The Exchange's drill through amount for the class is three ticks (or 0.15), and the drill

The proposed rule change amends the market width price check parameter in Rule 6.13(b)(v) (proposed Rule 6.13(b)(v)(A)) to be determined on a class-by-class basis rather than series-by-series. The Exchange generally sets parameters on a class-by-class basis; however, pursuant to Rule 8.14, Interpretation and Policy .01, if the Exchange authorizes a group of series of a class to trade on the Hybrid Trading System and the remaining groups of series of a class to trade on the Hybrid 3.0 Trading System, the Exchange will establish trading parameters on a group basis rather than class basis. The proposed rule change makes additional nonsubstantive changes to Rule 6.13(b)(v), including separation of the provisions regarding the market-width price check parameter from those regarding the drill through price check parameter and use of plain English. The proposed rule change also amends Rule 6.2B, Interpretation and Policy .03 to update the cross-reference to the drill through price check parameter and indicate the Exchange will determine the ATD for the opening drill through protection on a class-by-class rather than series-by-series basis consistent with the proposed rule change described above.

through resting time period is two seconds. The System receives an incoming order to buy 100 at 1.30, which executes against resting orders and quotes as follows: 10 against Quote A at 1.00, 10 against Order A at 1.05, 10 against Quote B at 1.10, and 10 against Order B at 1.15. The System will not automatically execute the remaining 60 contracts from the incoming order against Order C, because 1.20 is more than 0.15 away from the initial execution price of 1.00 and thus exceeds the drill through price check. The 60 unexecuted contracts are then exposed pursuant to HAL at 1.15 (which is the drill through price, and better than the NBO). No responses to trade against the remaining 60 contracts are entered during the auction, so the 60 contracts remain unexecuted. These contracts then rest in the book for two seconds at a price of 1.15. No incoming orders are entered during that time period to trade against the remaining 60 contracts, so the System cancels that remaining portion of the original incoming order.

### Example #2

Suppose CBOE's market for a series in a class with a 0.05 minimum increment is 0.90 – 1.00, represented by a quote for 10 contracts on each side (the quote offer is Quote A). The following sell orders or quote offers also rest in the series: 10 contracts at 1.05 (Order A), 10 contracts at 1.10 (Quote B), 10 contracts at 1.15 (Order B), and 100 contracts at 1.20 (Order C). The market for away exchanges is 0.80 – 1.10, with 5 contracts available on each side. The Exchange's drill through amount for the class is three ticks (or 0.15), and the drill through resting time period is two seconds. The System receives an incoming order to buy 100 at 1.30, which executes against resting orders and quotes as follows: 10 against Quote A at 1.00, 10 against Order A at 1.05, and 10 against Quote B at 1.10. The System will not automatically execute the remaining 70 contracts

from the incoming order against Orders B and C, because CBOE no longer has size available at the NBBO. The 70 unexecuted contracts are then exposed pursuant to HAL at 1.10 (which is the NBO). No responses to trade against the remaining 70 contracts are entered during the auction, so 5 contracts route away to trade at 1.10 against the 5 contracts available at an away exchange. The best offer from an away exchange then changes to 1.25. Of the remaining 65 unexecuted contracts from the incoming order, 10 trade against Order B at 1.15. The System will not automatically execute the remaining 55 contracts from the incoming order against Order C, because 1.20 is more than 0.15 away from the initial execution price of 1.00 and thus exceeds the drill through price check. These contracts will not be exposed pursuant to HAL again, and instead will rest in the book for two seconds at a price of 1.15. An incoming order to buy 20 at 1.15 is entered after one second, which trades against 20 of the 55 resting contracts. No other incoming orders are entered during that time period to trade against the remaining 35 contracts, so the System cancels that remaining portion of the original incoming order.

### **TPH-Designated Risk Settings**

The proposed rule change amends Rule 6.14 to authorize the Exchange to share any TPH-designated risk settings in the system with a Clearing TPH that clears Exchange transactions on behalf of the TPH. Rule 6.20(a) states unless otherwise provided in the Rules, no one but a TPH, an Order Book Official designated by the Exchange pursuant to Rule 7.3, or PAR Official designated by the Exchange pursuant to Rule 7.12 may make any transaction on the Exchange. All Exchange transactions must be submitted for clearance to the Options Clearing Corporation (the "Clearing Corporation") and are subject to the Clearing Corporation's rules. For each Exchange transaction in which it

participates, a TPH must immediately give up the name of the Clearing TPH through which the Exchange transaction will be cleared.<sup>20</sup> Every Clearing TPH is responsible for the clearance of the Exchange transactions of such Clearing TPH and each TPH that gives up such Clearing TPH's name pursuant to a letter of authorization, letter of guarantee or authorization given by such Clearing TPH to such TPH, which authorization must be submitted to the Exchange.<sup>21</sup>

Thus, while not all TPHs are Clearing TPHs, all TPHs require a Clearing TPH's consent to clear Exchange transactions on their behalf in order to conduct business on the Exchange. The letter of authorization or guarantee, or other authorization, describes the relationship between the TPH and Clearing TPH and provides the Exchange with notice of which Clearing TPHs have relationships with which TPHs. The Clearing TPH that guarantees the TPH's Exchange transactions has a financial interest in understanding the risk tolerance of the TPH. This proposed rule change would provide the Exchange with authority to provide Clearing TPHs directly with information that may otherwise be available to such Clearing TPHs by virtue of their relationship with respective TPHs.<sup>22</sup>

The risk settings that the Exchange may share with Clearing TPHs include, but are not limited to, settings under Rule 8.18 (related to QRM, as further described below), and will include settings under proposed Rule 6.14(d) (related to order entry and execution rate checks, as described below) and (e) (related to maximum contract size, as described below). To the extent the Exchange proposes additional rules providing for TPH-designated risk settings other than those in current rules and this rule filing, the

<sup>&</sup>lt;sup>20</sup> See Rule 6.21.

 $<sup>\</sup>overline{See}$  id

The Exchange will share a TPH's risk settings with its Clearing TPH(s) upon request from the Clearing TPH(s).

Exchange will be able to share those settings with Clearing TPHs under this proposed change as well.<sup>23</sup> Other options exchange have similar rules permitting them to share member-designated risk settings with other members that clear transactions on the member's behalf.<sup>24</sup>

### Put Strike Price/Call Underlying Value Checks

The proposed rule change amends the put strike price and call underlying value checks in Rule 6.14(a). Pursuant to these checks, the System rejects back to the TPH a quote or buy limit order for (1) a put if the price of the quote bid or order is greater than or equal to the strike price of the option, or (2) a call if the price of the quote bid or order is greater than or equal to the consolidated last sale price of the underlying security, with respect to equity and exchange-traded fund options, or the last disseminated value of the underlying index, with respect to index options. The proposed rule change extends this check to apply to market orders (or any remaining size after partial execution).

With respect to put options, a TPH seeks to buy an option that could be exercised into the right to sell the underlying. The value of a put can never exceed the strike price of the option, even if the underlying goes to zero. For example, one put for stock ABC with a strike price of \$50 gives the holder the right to sell 100 shares of ABC for \$50, no more or less. Therefore, it would be illogical to pay more than \$50 for the right to sell shares of ABC, regardless of the price of ABC. Under this check, the Exchange deems

The proposed rule change also makes nonsubstantive changes to Rule 6.14, including adding risk controls to the name of the rule and an introductory sentence that the System's acceptance and execution of orders and quotes are subject to the price protection mechanisms and risk controls in Rule 6.14 and other rules.

See, e.g., Miami International Securities Exchange, LLC ("MIAX") Rule 500; NASDAQ OMX BX, Inc. ("BX") Chapter VI, Section 20; NYSE Arca, Inc. ("Arca") Rule 6.2A(a); NYSE MKT LLC ("MKT") Rule 902.1NY(a); and NASDAQ OMX PHLX LLC ("PHLX") Rule 1016.

any put bid or buy limit order with a price that equals or exceeds the strike price of the option to be erroneous and rejects it, and the Exchange believes it would be appropriate to similarly reject a market order (or remaining size after partial execution) that would execute at that erroneous price.

With respect to call options, a TPH seeks to buy an option that could be exercised into the right to buy the underlying. The Exchange does not believe a derivative product that conveys the right to buy the underlying should ever be priced higher than the prevailing value of the underlying itself. In that case, a market participant could purchase the underlying at the prevailing value rather than pay a larger amount for the call. Accordingly, under this check, the Exchange rejects bids or buy limit orders for call options with prices that are equal to or in excess of the value of the underlying. As an example, suppose a TPH submits an order to buy an ABC call for \$11 when the last sale price for stock ABC is \$10. The System rejects this order. The Exchange believes it would be appropriate to similarly reject a market order (or remaining size after partial execution) that would execute at that erroneous price.

The Exchange also proposes to amend Rule 6.14(a) to provide the Exchange will not (as opposed to have the discretion not to) apply the call check to a class during Extended Trading Hours. The Exchange currently does not apply the check during that trading session and is only deleting its ability to apply the check during that trading session, which it does not expect to do.<sup>25</sup> Additionally, the proposed rule change states the put and call checks will not apply to market orders that execute during the opening

Note the current rule states the check does not apply if market data for the underlying is unavailable. If the value of the underlying is not currently being disseminated, market data for the underlying will be considered "unavailable."

process as set forth in Rule 6.2B to avoid impacting the determination of the opening price. Separate price protections apply during the opening process, including the drill through protection in Rule 6.2B.<sup>26</sup>

## Quote Inverting NBBO Check

The proposed rule change amends Rule 6.14(b) regarding the quote inverting NBBO check. Pursuant to this check, if CBOE is at the NBO (NBB), the System rejects a quote back to a Market-Maker if the quote bid (offer) crosses the NBO (NBB) by more than a number of ticks specified by the Exchange. If CBOE is not at the NBO (NBB), the System rejects a quote back to a Market-Maker if the quote bid (offer) locks or crosses the NBO (NBB).<sup>27</sup> If the NBBO is unavailable, locked or crossed, then this check compares the quote to the BBO (if available). The rule is currently silent on what happens if the BBO is also unavailable. Therefore, the proposed rule change clarifies the System does not apply this check to incoming quotes when the BBO is also unavailable, as there is no then-current price to use as a comparison to determine the reasonability of the quote. The proposed rule change also clarifies this is true when a series is open for trading.

The proposed rule change further clarifies the times when this check applies. Current Rule 6.14(b)(ii) provides the Exchange may not apply the check during the preopening, a trading rotation, or trading halt. Proposed Rule 6.14(b)(ii) states prior to the opening of a series (including during any pre-opening period and opening rotation), the

The Exchange also makes a nonsubstantive change to Rule 6.14(a) so the language reads "greater than or equal to" rather than "equal to or greater than," which is the standard phrase.

The System also cancels any resting quote of the Market-Maker in the same series.

System does not apply this check to incoming quotes if the series is not open on another exchange. This is consistent with flexibility in the current rule permitting the Exchange to apply (or not apply) the check prior to the open. The Exchange believes without inputs of pricing from other exchanges, it is appropriate to not apply the check if a series is not yet open on another exchange to avoid rejecting quotes that may be consistent with market pricing not yet available in the System. Proposed Rule 6.14(b)(iii) deletes the Exchange's flexibility to apply the quote inverting NBBO check during a trading halt. The Exchange currently does not apply the check to quotes entered during these times and does not expect to do so. The proposed rule change moves the provision permitting a senior official at the Exchange's Help Desk to determine not to apply this check in the interest of maintaining a fair and orderly market to proposed Rule 6.14(b)(iv).

#### Execution of Quotes That Lock or Cross NBBO

The proposed rule change amends the provision related to the execution of quotes that lock or cross the NBBO in current Rule 6.14(b)(iii). As this is a separate limitation on execution than the quote inverting NBBO check in Rule 6.14(b),<sup>28</sup> the proposed rule change moves this limitation to proposed Rule 6.14(c) (and makes other nonsubstantive changes to the numbering and lettering within that paragraph, as well as adding a name to the paragraph). The rule currently states if the System accepts a quote that locks or crosses the NBBO, the System executes the quote bid (offer) against quotes and orders in the book at a price(s) that is the same or better than the best price disseminated by an

The quote inverting NBBO check rejects quotes back to a Market-Maker if the quote bid (offer) crosses the NBO (NBB) by more than a specified number of ticks. The limitation on execution of quote that lock or cross the NBBO describes how the System will handle quotes that lock or cross the NBBO (but not by more than the specified number of ticks and thus are accepted).

away exchange(s) up to the size available on the Exchange and either (1) cancels any remaining size of the quote, if the price of the quote locks or crosses the price disseminated by the away exchange(s), or (2) books any remaining size of the quote, if the price of the quote does not lock or cross the price of the away exchange(s); provided, if a quote inverts another quote, it is subject to Rule 6.45A(d)(ii) or 6.45B(d)(ii).

Rules 6.45A(d)(ii) and 6.45B(d)(ii) state the System will not disseminate an internally crossed market, and if a Market-Maker submits a quote that would invert an existing quote, the System will change the incoming quote so it locks the existing quote. The Exchange then disseminates the locked market, and both quotes will be deemed firm. When the market locks, a counting period will begin during which Market-Makers whose quotes are locked may eliminate the locked quote (provided a Market-Maker will be obligated to execute orders eligible for automatic execution at its disseminated quote). If at the end of the counting period the quotes remain locked, the locked quotes will automatically execute against each other in accordance with the applicable allocation algorithm.

Under current Rule 6.14(b)(iii) (which is being moved to proposed paragraph (c)), an incoming quote that locks or crosses the NBBO would execute against quotes that are at the same best price disseminated by an away exchange up to the size available on the Exchange. However, if the only available size on the Exchange at that best price is a Market-Maker quote, any counting period under the quote lock rule would cause the Exchange to disseminate a quote that locks that of an away exchange (which should be avoided pursuant to Rule 6.82 and the Options Linkage Plan). To prevent this, the proposed rule change states if the Exchange has established a counting period for a class

pursuant to Rule 6.45A(d)(i) or 6.45B(d)(i), then notwithstanding Rule 6.45A(d) or 6.45B(d), if CBOE (represented by a Market-Maker quote offer (bid)) and an away exchange(s) are each at the NBO (NBB), the System rejects an incoming Market-Maker quote bid (offer) (or unexecuted portion after the quote trades against any resting orders in the Book at the NBO (NBB)) that locks or crosses resting Market-Maker quote offer (bid) at the NBO (NBB).<sup>29</sup> For example, suppose the NBBO is 1.00 – 1.20 and the BBO is 0.95 – 1.20 in equity class ABC. The 1.20 offer on CBOE consists of a Market-Maker quote. Suppose the counting period in Rule 6.45A(d)(i) is set at one second. If another Market-Maker submits a quote bid for 1.20, rather than lock with the resting Market-Maker quote offer of 1.20 pursuant to the quote lock provision, the incoming quote bid will be rejected.

Incoming bid (offer) quotes that lock or cross the NBO (NBB) if CBOE alone is at the NBO (NBB) and no Market-Maker quote represents the NBO (NBB), if an away exchange alone is at the NBO (NBB), or if there is no counting period will continue to be handled as described in current Rule 6.14(b)(iii) (proposed paragraph (c)) (the System executes the quote bid (offer) against quotes and orders in the book at prices that are the same or better than the best price disseminated by an away exchange(s) up to the size available on CBOE (which amount is none if CBOE is not at the NBO (NBB)), and cancels the remaining size).

In addition, the current rule is silent regarding the applicability of this limitation on execution to quotes when the NBBO is locked, crossed or unavailable. The purpose of this provision is to prevent trade-throughs and displays of locked and crossed markets

Rules 6.45A(d)(ii) and 6.45B(d)(ii) continue to apply to inverted quotes in other circumstances.

in accordance with the Options Linkage Plan. However, when the NBBO is locked or crossed, it is unreliable for comparison purposes. Additionally, if there is no NBBO available, then there is no measure against which the System can compare the price of an incoming quote. Therefore, the proposed rule change states if the NBBO is locked, crossed or unavailable, the System does not apply this check to incoming quotes. The linkage rules similarly provide exceptions to the prohibitions on trade-throughs and crossed markets when there is a crossed market or systems or equipment malfunctions.<sup>30</sup> The proposed rule change adds a senior official at the Exchange's Help Desk may determine not to apply this check in the interest of maintaining a fair and orderly market.<sup>31</sup> The Exchange may believe it is appropriate to disable this check in response to a market event or market volatility to avoid inadvertently cancelling quotes not erroneously priced but rather priced to reflect potentially rapidly changing prices.

## Order Entry, Execution and Price Parameter Rate Checks

The proposed rule change adopts order entry, execution and price parameter rate checks in proposed Rule 6.14(d). Currently, QRM (described below) provides Market-Makers with functionality to help manage their risk by limiting the number of quotes they may execute in a specified period of time (based on several parameters). The proposed order entry and execution rate checks will provide similar risk-management functionality for orders. These order risk protections are designed to aid TPHs in their risk management by supplementing current and proposed price reasonability checks with activity-based order protections that protect against entering too many orders, executing

<sup>&</sup>lt;sup>30</sup> See Rules 6.81 and 6.82.

Pursuant to Exchange procedures, any decision to not apply the quote inverting NBBO check, as well as the reason for the decision, will be documented, retained, and periodically reviewed.

too many contracts, and having too many orders rejected because of price protection parameters in a short time, based on parameters entered by TPHs.

Specifically, the proposed rule change states each TPH must provide to the Exchange parameters for an acronym or, if the TPH requests, a login,<sup>32</sup> for each of the following rate checks. The System will count each of the following over rolling time intervals, which the Exchange will set and announce via Regulatory Circular:

- (1) the total number of orders (of all order types) and auction responses entered and accepted by the System ("orders entered");
- (2) the total number of contracts (from orders and auction responses) executed on the System, which does not count executed contracts from orders submitted from a PAR workstation or an OMT or stock contracts executed as part of stock-option orders ("contracts executed");
- (3) the total number of orders the System books or routes via the order handling system<sup>33</sup> pursuant to the drill through price check parameter (as

A TPH firm may have multiple acronyms. For each Trading Permit a TPH purchases, it receives up to three log-ins (the TPH may elect to use fewer than the three). Additionally, a TPH may purchase additional bandwidth packets, each of which comes with three log-ins. The TPH determines which log-ins will be used under which acronym. While not required, TPH firms, for example, may use one acronym, or log-in, for its proprietary business and another for its customer agency business (if the firm conducts both). Additionally, TPH firms sometimes use different log-ins for different customers. Allowing TPHs to set parameters for these protection mechanisms will allow TPHs to minimize the possibility of these mechanisms from affecting multiple businesses, if they choose to set up acronyms and log-ins in a manner that keeps these business separate.

As discussed above, orders (or unexecuted portions) that by their terms cancel if they do not execute immediately will be cancelled rather than rest in the book for a period of time (as proposed in this filing) pursuant to the drill through price check parameter is triggered. Because these orders will not book or route pursuant to the drill through price check parameter, these orders will not be included in the count for the drill through event check.

- amended by this proposed rule change) in proposed Rule 6.13(b)(v)(B) ("drill through events"); and
- (4) the total number of orders the System cancels or routes via the order handling system pursuant to the limit order price parameter in Rule 6.12(a)(3) through (5) ("price reasonability events").

When the System determines the orders entered, contracts executed, drill through order events or price reasonability events within the applicable time interval exceeds a TPH's parameter, the System (1) rejects all subsequent incoming orders and quotes, (2) cancels all resting quotes (if the acronym or login is for a Market-Maker), and (3) for the orders entered and contracts executed checks, if the TPH requests (i.e., this part of the proposed functionality is optional), cancels resting orders (either all orders, orders with time-in-force of day, or orders entered on that trading day) for the acronym or login, as applicable.

The System will not accept new orders or quotes from a restricted acronym or login, as applicable, until the Exchange receives the TPH's manual notification (in a form and manner determined by the Exchange, which will be announced by Regulatory Circular) to reactivate its ability to send orders and quotes for the acronym or login. While an acronym or login is restricted, a TPH may continue to interact with any resting orders (i.e., orders not cancelled pursuant to this protection) entered prior to its acronym or login becoming restricted, including receiving trade execution reports and canceling resting orders.

While these order entry and execution rate checks are mandatory for all TPHs, the Exchange is not proposing to establish minimum or maximum values for the parameters

described in (1) through (4) above. The Exchange believes this approach will give TPHs the flexibility needed to appropriately tailor these checks to their respective risk management needs. In this regard, the Exchange notes each TPH is in the best position to determine risk settings appropriate for its firm based on its trading activity and business needs. The Exchange will set the values of the time intervals<sup>34</sup>; however, the Exchange believes the amount of flexibility provided to TPHs by having no minimum or maximum values, or default values, for the parameters, as well as by permitting the parameters to be set at the acronym or login level, sufficiently allows TPHs to adjust their parameter inputs to these intervals in accordance with their business models and risk management needs.

The Exchange believes these proposed order entry and execution rate checks will assist TPHs in better managing their risk when trading on CBOE. In particular, the proposed rule change provides functionality that allows TPHs to set risk management thresholds for the number of orders entered or contracts executed on the Exchange during a specified period. This is similar to how other options exchanges have implemented activity-based risk management protections, and the Exchange believes this functionality will likewise benefit TPHs.<sup>35</sup> Additionally, similar to QRM, which includes a parameter for the maximum number of QRM incidents that will trigger cancellation of their orders and quotes once reached, the proposed rule change includes parameters for a maximum number of orders that book or route pursuant to the drill through check and cancel or

The Exchange expects the initial time intervals for all these checks to be set at one and five minutes. The time intervals set by the Exchange will apply to all TPHs, who will not be able to change these time intervals.

See, e.g., International Securities Exchange, LLC ("ISE") Rule 714(d) and MIAX Rule 519A.

route pursuant to the limit order price check. This could occur, for example, if a system issue is causing many orders to be submitted at prices that are too far away from the market and likely erroneous; this protection will help prevent execution of these erroneous orders.

The below examples illustrate how these order entry and execution rate checks will work:

### Example #1 – Order Entry Rate Check

A TPH designates an allowable orders entered rate of 9 orders/1 minute for acronym ABC. The TPH enters three orders for acronym ABC, then enters nine additional orders one minute and thirty seconds later (for the same acronym). Because the orders entered did not exceed the TPH's designated rate for acronym ABC within one minute (the second batch of orders was entered more than one minute after the first batch of orders), acronym ABC is not restricted from submitting additional orders. Thirty seconds later, the TPH enters one additional order for acronym ABC. Entry of this order triggers the rate check because the TPH entered 10 orders in less than one minute for acronym ABC. At this time, acronym ABC becomes restricted,<sup>37</sup> and the System will reject all orders (and quotes, if acronym ABC is a Market-Maker), cancel any resting quotes (if acronym ABC is a Market-Maker), and cancel resting orders (if the TPH opted to enable that functionality). The TPH must contact the Exchange to resume trading for acronym ABC.

As noted above, the Exchange intends to initially set intervals of one minute and five minutes, so the TPH would have a separate entry rate for the five-minute interval, which would be measured in the same manner demonstrated by these examples. This is true for each of the rate checks in proposed Rule 6.14(e).

Note the System accepts the tenth order entered, as the check is not triggered until the orders entered exceeds the TPH's designated rate during a one-minute interval.

### Example #2 – Contracts Executed Rate Check

A TPH designates an allowable contracts executed rate of 999 contracts/1 minute for acronym DEF. The TPH enters an order to buy 600 contracts for acronym DEF, which immediately executes against a resting quote offer. One minute and 15 seconds after that execution, the TPH enters an order to sell 500 contracts for acronym DEF, which immediately executes against a resting quote bid. Because the two executions did not exceed the TPH's designated rate for acronym DEF within one minute (the second execution occurred more than one minute after the first execution), acronym DEF is not restricted from submitting additional orders. Forty-five seconds after the second execution, the TPH enters an order to buy 500 contracts for acronym DEF, which immediately executes against a resting sell order. Execution of this third order triggers the rate check because the TPH executed 1,000 contracts in less than one minute for acronym DEF. At this time, acronym DEF becomes restricted, 38 and the System will reject all orders (and quotes, if acronym DEF is a Market-Maker), cancel any resting quotes (if acronym DEF is a Market-Maker), and cancel resting orders (if the TPH opted to enable that functionality). The TPH must contact the Exchange to resume trading for acronym DEF.

#### Example #3 – Drill Through Event Rate Check

A TPH designates an allowable drill through event rate of 1 event/1 minute for acronym GHI. The ATD for the class, whose minimum increment is 0.05, is 0.10 (i.e., two minimum increments). The market for the XYZ Dec 50 call is 1.00 – 1.20, represented by an order for 100 contracts on each side. There are also resting orders to

Note the System executes this third order, as the check is not triggered until the contracts executed exceeds the TPH's designated rate during a one-minute interval.

buy 100 at 0.90 and buy 100 at 0.80. The TPH enters a market order to sell 300 contracts for acronym GHI. One hundred contracts from the order execute against the resting order to buy 100 at 1.00 and 100 more contracts from the order execute against the resting order to buy 100 at 0.90. The System cancels the remaining 100 contracts of the order after resting in the book at 0.90 for a period of time (pursuant to the drill through protection, as proposed to be changed). Thirty seconds later, the market for the XYZ Jan 40 call is 2.00 - 2.20, represented by an order for 100 contracts on each side. There are also resting orders to sell 100 at 2.25, sell 100 at 2.30, and sell 100 at 2.40. The TPH enters a market order to buy 500 contracts for acronym GHI. One hundred contracts from the order execute against the resting order to sell 100 at 2.20, 100 more contracts from the order execute against the resting order to sell 100 at 2.25, and 100 more contracts from the order execute against the resting order to sell 100 at 2.30. One hundred of the remaining contracts executes at 2.30 while resting in the book for a period of time, and the System cancels the remaining 100 contracts (pursuant to the drill through protection, as proposed to be changed). This is the second instance in less than one minute of the remaining portion of an order for acronym GHI being cancelled due to the drill through protection. At this time, acronym GHI becomes restricted, and the System will reject all orders (and quotes, if acronym GHI is a Market-Maker), and cancel any resting quotes (if acronym GHI is a Market-Maker). The TPH must contact the Exchange to resume trading for acronym GHI.

# Example #4 – Price Reasonability Event Rate Check

A TPH designates an allowable price reasonability event rate of 1 event/1 minute for acronym JKL. The ATD for the class, whose minimum increment is 0.05, is 0.10

(i.e., two minimum increments). The market for the XYZ Dec 50 call is 1.00 – 1.20. The TPH enters a limit order to sell at 0.85 for acronym JKL. The System rejects the order because it is more than 0.10 below the NBB (pursuant to the limit order price parameter, as proposed to be changed). Thirty seconds later, the market for the XYZ Jan 40 call is 2.00 - 2.20. The TPH enters a limit order to buy at 2.40 for acronym JKL. The System rejects the order because it is more than 0.10 above the NBO (pursuant to the limit order price parameter, as proposed to be changed). This is the second instance in less than one minute of an order for acronym JKL being rejected due to the limit order price parameter. At this time, acronym JKL becomes restricted, and the System will reject all orders (and quotes, if acronym JKL is a Market-Maker), and cancel any resting quotes (if acronym JKL is a Market-Maker). The TPH must contact the Exchange to resume trading for acronym JKL.

#### Maximum Contract Size

The proposed rule change adds a maximum contract size risk control. Specifically, proposed Rule 6.14(e) states the System will reject a TPH's incoming order or quote (including both sides of a two-sided quote) if its size exceeds the TPH's designated maximum contract size parameter. Each TPH must provide a maximum contract size for each of simple orders, complex orders, and quotes applicable to an acronym or, if the TPH requests, a login.<sup>39</sup> The Exchange believes the amount of flexibility provided to TPHs by having no maximum for the contract size parameter, as well as by permitting the parameters to be set at the acronym or login level, sufficiently

For purposes of determining the contract size of an incoming order or quote, the proposed rule states the contract size of a complex order will equal the contract size of the largest option leg of the order (*i.e.*, if the order is a stock-option order, this check will not apply to the stock leg of the order).

allows TPH to adjust their parameter inputs to these intervals in accordance with their business models and risk management needs. The Exchange believes this proposed risk control will help prevent executions of orders with size that may be potentially erroneous and mitigate risk associated with such executions. This is similar to how other options exchanges have implemented maximum contract size protections, and the Exchange believes this functionality will likewise benefit TPHs.<sup>40</sup>

If a TPH enters an order or quote to replace a resting order or update a resting quote, respectively, and the System rejects the incoming order or quote because it exceeds the applicable maximum contract size, the System will also cancel the resting order or any resting quote in the same series. The Exchange believes it is appropriate to reject or cancel the resting order or quote because, by submitting a replacement order or quote update because it exceeds the TPH's maximum contract size, the TPH is implicitly instructing the Exchange to cancel the resting order or quote, respectively. Thus, even if the system rejects the replacement order or quote update, the TPH's implicit instruction to cancel the resting order or quote remains valid nonetheless. Additionally, with respect to quotes, the Exchange believes it is appropriate to reject or cancel, as applicable, both sides of a quote (whether submitted as a two-sided quote or resting, respectively) because Market-Makers generally submit two-sided quotes, as their trading strategies and risk profiles are based on the spreads of their quotes. Rejecting and cancelling, as applicable, quotes on both sides of the series is consistent with this practice. The Exchange believes cancellation of resting quotes and orders, and rejection of both sides of a two-sided quote,

<sup>&</sup>lt;sup>40</sup> See, e.g., MIAX Rule 519(b).

operate as additional safeguards that cause TPHs to re-evaluate orders and quotes before attempting to submit new orders or quotes.

To the extent a TPH submits a pair of orders to the Automated Improvement Mechanism ("AIM"), 41 the Solicitation Auction mechanism ("SAM"), 42 or as a qualified cross-contingent order ("QCC order"), 43 this proposed check will apply to both orders in the pair. If the System rejects either order in the pair, then the system will also cancel the paired order. It is the intent of these paired orders to execute against each other (with respect to AIM and SAM orders) or as a single transaction (with respect to QCC orders). Thus, the Exchange believes it is appropriate to reject both orders if one does not satisfy the maximum contract size check to be consistent with the intent of the submitting TPH. Notwithstanding the foregoing, with respect to A:AIR<sup>44</sup> orders, if the System rejects the agency order pursuant to the maximum contract size check, then the System will also reject the contra-side order. However, if the System rejects the contra-side order pursuant to this check, the System will accept the agency order (assuming it satisfies the check). The purpose of the A:AIR contingency provides the opportunity for the agency order (which is a customer of the submitting TPH) to execute despite not entering an AIM auction pursuant to which the order may execute against a facilitation or solicitation order of the TPH. The Exchange believes the proposed rule change is consistent with that contingency.

See Rule 6.74A for a description of the AIM auction process.

<sup>42</sup> See Rule 6.74B for a description of the SAM auction process.

 $<sup>\</sup>overline{\text{See}}$  Rule 6.53(u) for a definition of QCC orders.

<sup>44 &</sup>lt;u>See</u> Rule 6.74A, Interpretation and Policy .09 for a description of the A:AIR functionality.

#### Kill Switch

The Exchange proposes to adopt a kill switch in proposed Rule 6.14(f). The kill switch will be an optional tool allowing a TPH to send a message to the System to, or contact the Exchange Help Desk to request that the Exchange, cancel all its resting quotes (if the acronym or login is for a Market-Maker), resting orders (either all orders, orders with time-in-force of day, or orders entered on that trading day), or both for an acronym or login. The System will send a TPH an automated message when the Exchange has processed a kill switch request for any acronym or login.

Once a TPH initiates the kill switch for an acronym or login, the System rejects all subsequent incoming orders and quotes for the acronym or login, as applicable. The System will not accept new orders or quotes from a restricted acronym or login until the Exchange receives the TPH's manual notification (in a form and manner determined by the Exchange, which will be announced by Regulatory Circular) to reactivate its ability to send orders and quotes for the acronym or login. While an acronym or login is restricted, a TPH may continue to interact with any resting orders (i.e., orders not cancelled pursuant to the kill switch) entered prior to its acronym or login becoming restricted, including receiving trade execution reports and canceling resting orders. The proposed kill switch will provide TPHs with a powerful risk management tool for immediate control of their order and quote activity. It will offer TPHs a means to control their exposure through an interface not dependent on the integrity of their own systems, should they experience any type of system failure. This is similar to how other options

exchanges have implemented kill switches, and the Exchange believes this functionality will likewise benefit TPHs. 45

#### **QRM** Mechanism

The proposed rule change amends the QRM mechanism in Rule 8.18. QRM is functionality that automatically cancels a Market-Maker's quotes when certain parameter settings are triggered. Specifically, a Market-Maker may establish a (1) maximum number of contracts, (2) a maximum cumulative percentage of the original quoted size of each side of each series, and (3) the maximum number of series for which either side of the quote is fully traded that may trade within a rolling time period in milliseconds also established by the Market-Maker. When these parameters are exceeded within the time interval, the System cancels the Market-Maker's quotes in the class and other classes with the same underlying on the same trading platform. Additionally, Rule 8.18 allows Market-Makers or TPH organizations to specify a maximum number of QRM incidents on an Exchange-wide basis. If the Market-Maker or TPH organization exceeds this number of incidents within a specified time interval, the System will cancel all of the Market-Maker's or TPH organization's quotes and resting orders in all classes and prevent it from sending additional quotes or orders to the Exchange until it reactivates this ability.

This functionality allows Market-Makers to provide liquidity across potentially hundreds of options series without being at risk of executing the full cumulative size of all these quotes before being given adequate opportunity to adjust their quotes. Use of this functionality has been voluntary for Market-Makers under the rules. From a

<sup>45 &</sup>lt;u>See, e.g.</u>, BOX Options Exchange LLC ("BOX") Rule 7280 and PHLX Rule 1019(b).

technical perspective, Market-Makers currently do not need to enter any values into the applicable fields, and thus effectively can choose not to use these tools. The Exchange proposes to amend Rule 8.18 to make it mandatory for Market-Makers to enter values for each parameter for all classes in which it enters quotes. The purpose of the proposed rule change is to prevent Market-Makers from inadvertently entering quotes without risk-management parameters. The Exchange notes all Market-Makers currently have settings for these parameters. However, it is possible that a Market-Maker could inadvertently enter quotes without populating one or more of the parameters, resulting in the Market-Maker being exposed to much more risk than it intended. The proposed rule change will prevent this from occurring.

While entering values for the QRM parameters will be mandatory to prevent inadvertent exposure to risk, the Exchange notes Market-Makers who prefer to use their own risk-management systems can enter values that assure the Exchange parameters will not be triggered.<sup>46</sup> Accordingly, the proposed rule change provides Market-Makers with flexibility to use their own risk management tools. The Exchange notes other exchanges make similar functionality mandatory for all Market-Makers.<sup>47</sup>

# Order of Application of Risk Controls/Price Protections

Upon approval of this rule filing, the Exchange will have various risk controls and price protection mechanisms in place applicable to quotes and orders. The following lists the "order" in which the System will apply these controls and mechanisms to incoming quotes and orders:

For example, a Market-Maker could set the value for the total number of contracts executed in a class at a level exceeding the total number of contracts it actually quotes in the class.

See, e.g., ISE Rule 804(g).

## **Incoming Quotes:**

- maximum contract size (proposed Rule 6.14(e));
- put/call check (current Rule 6.14(a), as proposed to be amended by this rule filing);
- execution of quotes that lock or cross the NBBO (current Rule 6.14(b)(iii), proposed to be moved to proposed Rule 6.14(c) in this rule filing); and
- quote inverting NBBO (current Rule 6.14(b), as proposed to be amended by this rule filing).

Note QRM may be triggered after a quote executes.

## **Incoming Simple Limit Orders:**

- maximum contract size (proposed Rule 6.14(e));
- put/call check (current Rule 6.14(a), as proposed to be amended by this rule filing)<sup>48</sup>; and
- limit order price parameter (current Rule 6.12(a)(3), as proposed to be amended by this rule filing).

Note the order entry, execution and price parameter rate checks in proposed Rule 6.14(d) and the drill through price check parameter in current Rule 6.13(b)(v) (as proposed to be amended by and moved to proposed Rule 6.13(b)(v)(B) in this rule filing) may be triggered after a limit order executes.

If a limit order is an order marked to cancel and replace a resting limit order, the maximum contract size check applies after the put/call check. Generally, cancel and replace orders do not modify the size of a resting order, which the System would have already determined did not exceed the TPH's maximum contract size parameter. Therefore, the Exchange believed it was reasonable to apply a price reasonability check to these orders first, as that is the order information likely being changed.

## **Incoming Simple Market Orders:**

- maximum contract size (proposed Rule 6.14(e));
- market-width price check parameter (current Rule 6.13(b)(v), as proposed to be amended (nonsubstantively) by this rule filing and moved to proposed Rule 6.13(b)(v)(A)); and
- put/call check (current Rule 6.14(a), as proposed to be amended by this rule filing).<sup>49</sup>

# **Incoming Complex Orders:**

- maximum contract size (proposed Rule 6.14(e));
- limit order price parameter (current Rule 6.12(a)(4) and (5));
- debit/credit check (current Rule 6.53C, Interpretation and Policy .08(c)) or buy-buy (sell-sell) strategy parameter (current Rule 6.53C, Interpretation and Policy .08(d)), as applicable;
- maximum value acceptable price range check (current Rule 6.53C, Interpretation and Policy .08(g));
- market width parameter (current Rule 6.53C, Interpretation and Policy .08(a));
- credit-to-debit parameter (current Rule 6.53C, Interpretation and Policy .08(b));
- percentage distance parameter (current Rule 6.53C, Interpretation and Policy .08(e)); and

The pricing checks always apply after the maximum size check for market orders, because they apply at the time the System determines at what price these orders will execute, unlike limit orders entered with an execution price.

• stock-option derived net market parameter (current Rule 6.53C, Interpretation and Policy .08(f)).

Note the order entry, execution and price parameter rate checks in proposed Rule 6.14(d) and the drill through price check parameter in current Rule 6.13(b)(v) (as proposed to be amended by and moved to proposed Rule 6.13(b)(v)(B) in this rule filing) may be triggered after a market order executes.

## 2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Act and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.<sup>50</sup> Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>51</sup> requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>52</sup> requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the proposed price protection mechanisms and risk controls will protect investors and the public interest and maintain fair and orderly markets by

<sup>&</sup>lt;sup>50</sup> 15 U.S.C. 78f(b).

<sup>&</sup>lt;sup>51</sup> 15 U.S.C. 78f(b)(5).

Id.

mitigating potential risks associated with market participants entering orders and quotes at unintended prices or sizes, and risks associated with orders and quotes trading at prices that are extreme and potentially erroneous, which may likely have resulted from human or operational error.

The Exchange believes amending the limit order price parameter for simple orders (current Rule 6.12(a)(3)) to use the NBBO (rather than the Exchange previous day's closing price or BBO) when available perfects the mechanism of a free and open market and a national market system because it would more accurately reflect the thencurrent market. Thus, the Exchange believes it would be a better measure to use for purposes of determining the reasonability of the prices of orders and more accurately prevent executions of limit orders at erroneous prices, which ultimately protects investors. Continued use of the Exchange's previous day's closing price or BBO, as applicable, when no NBBO is available or the NBBO is not reliable will still provide continued price protection for orders during those times. The Exchange believes those prices would be the most relevant pricing information to determine the price at which an investor may want to buy or sell within a series, and the Exchange believes it is a reasonable substitute when no NBBO is available. The Exchange believes it is appropriate to have flexibility to determine to apply a different ATD to orders entered during the pre-opening, a trading rotation, or a trading halt to reflect different market conditions during those times. Additionally, the Exchange believes it is appropriate to not apply this price check to orders routed from a PAR workstation or OMT, as those orders were subject to manual handling by a PAR or OMT operator who will have evaluated the price of an order based on then-existing market condition prior to submitted

it for electronic execution, thus minimizing risk of an erroneous execution. Additionally, the Exchange believes it is appropriate to not apply the check to orders with a stop contingency, because the prices that trigger execution of orders with a stop condition are intended to be outside the NBBO, and nonapplicability of this check is consistent with that condition. Therefore, the Exchange believes it is unnecessary to apply this check to stop-limit orders. This flexibility and non-applicability, as applicable, will further assist the Exchange with its efforts to maintain a fair and orderly market, which will ultimately protect investors. Application of the drill through check to market and marketable limit orders (and of the market width check only to market orders) is consistent with the current Rule and applicability of those checks; the proposed rule change merely deletes the Exchange's flexibility to apply each check to market orders, marketable limit orders, or both.

The proposed rule change to the drill through price check parameter (current Rule 6.13(b)(v), and proposed Rule 6.13(b)(v)(B)) will benefit investors, as it more clearly describes how the System handles orders that were and were not previously exposed prior to trading at the drill through price. Additionally, the proposed rule change adds functionality to the drill through price check parameter to rest orders (or any remaining unexecuted portions) in the book for a brief time period (not to exceed three seconds) with a price equal to the drill through price promotes just and equitable principles of trade and benefits investors by providing an additional opportunity for execution at a price that does not appear to be erroneous prior to their cancellation while continuing to protect them against execution at erroneous prices. Excluding orders that by their terms cancel if they do not immediately execute from this proposed change is consistent with the terms

of those orders. In addition, the proposed rule change to apply the drill through protection to orders eligible for SAL will prevent erroneous executions of more orders, which assists the Exchange in its efforts to maintain a fair and orderly market. The proposed rule change also clarifies an order will HAL at the better of the drill through price to ensure an order will not be exposed at a price worse than the NBBO (this is consistent with the current HAL rule, which exposes orders at the NBBO).

The proposed rule change to permit the Exchange to share TPH-designated risk settings with Clearing TPHs that clear transactions on the TPH's behalf (proposed introductory paragraph to Rule 6.14) will permit Clearing TPHs who have a financial interest in the risk settings of TPHs with whom they have entered into a letter of authorization, letter of guarantee, or authorization given by such Clearing TPHs to such TPH to better monitor and manage the potential risks assumed by Clearing TPHs. Because such Clearing TPHs bear the risk associated with Exchange transactions of that TPH, it is appropriate for the Clearing TPHs to have knowledge of what risk settings the TPH may apply within the System. This knowledge will provide Clearing TPHs with greater control and flexibility in managing their own risk tolerance and exposure and aiding Clearing TPHs in complying with the Act. Additionally, to the extent a Clearing TPH might reasonably require a TPH to provide access to its risk settings as a prerequisite to continuing to clear trades on such TPH's behalf, the Exchange's proposed rule change to share those risk settings directly with a Clearing TPH reduces the administrative burden on the TPH and ensures that Clearing TPHs are receiving information that is up to date and conforms to settings active in the System. The

Exchange also notes the proposed rule change is consistent with rules of other exchanges.<sup>53</sup>

The proposed rule change to expand the applicability of the put strike price and call underlying value check to market orders (current Rule 6.14(a)) will further assist the Exchange's efforts to maintain a fair and orderly market by mitigating the potential risks associated with additional orders trading at prices that exceed a corresponding benchmark (which may result in executions at prices that are potentially erroneous). The Exchange believes it is appropriate and consistent with the current rule to no longer have flexibility to determine to not apply the call check to orders entered during Extended Trading Hours, as the check currently does not apply during that trading session and does not expect to do so. Similarly, the Exchange believes it promotes fair and orderly markets to not apply these checks to market orders executed during an opening rotation to avoid impacting the determination of the opening price (the Exchange notes separate price protections apply to orders during the opening process).

The proposed rule change to the quote inverting NBBO check (current Rule 6.14(b)) benefits investors by clarifying the System does not apply those checks to orders entered when there is no NBBO (or BBO with respect to the quote inverting NBBO check) available, as there is no reliable benchmark during those times against which the System can compare quote prices. This will remove impediments to and perfect the mechanism of a free and open market because these checks would not apply to quotes during times when there is no reliable price benchmark, and thus the check would not erroneously reject otherwise acceptable quotes, which may be disruptive to Market-

<sup>53 &</sup>lt;u>See, e.g.</u>, MIAX Rule 500; BX Chapter VI, Section 20; NYSE Arca Rule 6.2A(a); NYSE MKT Rule 902.1NY(a); and PHLX Rule 1016.

Makers that provide necessary liquidity to the Exchange. The proposed rule change to delete the Exchange's flexibility regarding when to apply the quote inverting NBBO check and instead state in the Rules it will not apply prior to a series opening if the series is not open on another exchange, and it will not apply during a trading halt is appropriate and consistent with the current rule. The Exchange currently does not apply the check to quotes entered during a halt and does not expect to do so. With respect to quotes entered in series prior to the opening, the Exchange believes it is appropriate to not apply the check if a series is not yet open on another exchange to avoid rejecting quotes that may be consistent with market pricing not yet available in the System.

The proposed changes to the execution of quotes that lock or cross the NBBO (current Rule 6.14(b)(iii) and proposed Rule 6.14(c)) to reject incoming quotes when a Market-Maker quote represents the BBO (and the Exchange has established a counting period pursuant to its quote lock functionality), which is also the NBBO (along with an away exchange), is consistent with the Options Linkage Plan and related rules, as it will prevent dissemination of a quote that locks or crosses an away market. The proposed rule change to allow the Exchange not to apply the execution of quotes that lock or cross the NBBO check in the interest of maintaining a fair and orderly market will allow the Exchange to disable this check in response to a market event or market volatility to avoid inadvertently cancelling quotes not erroneously priced but rather priced to reflect potentially rapidly changing prices, which will assist with the maintenance of a fair and orderly market.

The Exchange believes the proposed order entry, execution and price parameter rate checks (proposed Rule 6.14(d)) will assist with the maintenance of a fair and orderly

market by establishing new activity based risk protections for orders. The Exchange currently offers QRM, a risk protection mechanism for Market-Maker quotes, which the Exchange believes has been successful in reducing Market-Maker risk, and now proposes to adopt risk protections for orders that would allow other TPHs to similarly manage their exposure to excessive risk. In particular, the proposed rule change implements four new risk protections based on order entry and execution rates as well as rates of orders that trigger the drill through or price reasonability parameters. The Exchange believes these new protections would enable TPHs to better manage their risk when trading on the Exchange by limiting their risk exposure when systems or other issues result in orders being entered or executed, as well as executed at extreme prices, at rates that exceed predefined thresholds. In today's market, the Exchange believes robust risk management is becoming increasingly more important for all TPHs. The proposed rule change would provide an additional layer or risk protection for TPHs. In particular, these rate checks are designed to reduce risk associated with system errors or market events that may cause TPHs to send a large number of orders, receive multiple, automatic executions, or execute a large number of orders at extreme and potentially erroneous prices, before they can adjust their exposure in the market. The proposed order entry and execution rate checks are similar to risk management functionality provided by other options exchanges.<sup>54</sup> While the order entry and contracts executed rate checks apply to all TPHs, it is optional for TPHs to have resting orders (or certain subcategories of resting orders) cancelled when a rate check is triggered and an acronym or login becomes restricted.

<sup>54 &</sup>lt;u>See, e.g.</u>, ISE Rule 714(d) and MIAX Rule 519A.

The proposed maximum contract size risk control (proposed Rule 6.14(e)) is designed to help TPHs avoid potential submission of erroneously sized orders on the Similar to functionality intended to protect against orders and quotes Exchange. executing at unintended prices, this proposed functionality will assist in the maintenance of a fair and orderly market and protect investors by rejecting orders and quotes that are "too large" to prevent executions at unintended sizes and mitigate risks associated with such executions that are potentially erroneous. The Exchange believes the additional risk control feature to reject or cancel the resting or quote when an incoming replacement order or quote update is rejected pursuant to this proposed risk control is appropriate because, by submitting a replacement order or quote update, the TPH is implicitly instructing the Exchange to cancel the resting order or quote, respectively. Additionally, the Exchange believes it is appropriate to reject or cancel, as applicable, both sides of a quote because Market-Makers generally submit two-sided quotes, as their trading strategies and risk profiles are based on spreads of their quotes, and rejecting and cancelling, as applicable, both sides of a quote is consistent with this practice. The Exchange believes cancellation of resting quotes and orders, and rejection of both sides of a quote, operate as additional safeguards that cause TPHs to re-evaluate orders and quotes before attempting to submit new orders or quotes. This will further protect against erroneous trades, which protects investors. The Exchange also believes the proposed rule change regarding how the proposed check will apply to AIM, SAM and QCC orders is reasonable, as the proposed rule change is consistent with the contingencies attached to those types of orders.

With respect to the proposed order entry, execution and price parameter rate checks and maximum contract size check (as well as the existing QRM functionality), the Exchange believes it is appropriate to not have minimum or maximum values, or default values, for the parameters, to provide sufficient flexibility to TPHs to adjust their parameter inputs in accordance with their business and risk management needs. The Exchange believes price protection mechanisms benefits its market and the options industry as a whole, however, ultimately these mechanisms primarily protect TPHs against erroneous executions of their orders and quotes. CBOE appreciates the parameter settings determine whether these protections will be meaningful. Based on discussions with TPHs regarding its current and proposed package of risk controls and price protection mechanisms, the Exchange understands TPHs support the implementation of price protection mechanisms such as these and expects TPHs to input settings that are meaningful so they can take full advantage of the benefits these mechanisms are intended to provide.

The proposed kill switch (proposed Rule 6.14(f)) is an optional tool offered to all TPHs. The Exchange represents the proposed kill switch will operate consistently with the firm quote obligations of a broker-dealer pursuant to Rule 602 of Regulation NMS and the functionality is not mandatory. Specifically, any interest executable against a TPH's quotes and orders received by the Exchange prior to the time the kill switch is processed by the Exchange will automatically execute at the price up to the TPH's size. The kill switch message will be accepted by the System in the order of receipt in the queue and will be processed in that order so that interest already in the System will be processed prior to the kill switch message. A Market-Maker's utilization of the kill

switch, and subsequent removal of its quotes, does not diminish or relieve the Market-Maker of its obligation to provide continuous two-sided quotes. Market-Makers will continue to be required to provide continuous two-sided quotes on a daily basis, and a Market-Maker's utilization of the kill switch will not prohibit the Exchange from taking disciplinary action against the Market-Maker for failing to meet the continuing quoting obligation each trading day. All TPHs may determine whether a kill switch cancels resting quotes, resting orders (or certain subcategories of resting orders), or both. The Exchange also notes the proposed rule change is consistent with rules of other exchanges.<sup>55</sup>

The Exchange believes requiring Market-Makers to enter values into the risk parameters of the QRM mechanism (current Rule 8.18) will not be unreasonably burdensome, as all Market-Makers currently utilize the functionality. Additionally, the proposed rule change will assist Market-Makers in reducing their risk of inadvertently entering quotes without populating the risk parameters. Reducing this risk will enable Market-Makers to enter quotations with larger size, which in turn will benefit investors through increased liquidity for the execution of their orders. Such increased liquidity benefits investors because they receive better prices and because it lowers volatility in the options market.

While entering values for the QRM parameters will be mandatory to prevent inadvertent exposure to risk, the Exchange notes Market-Makers who prefer to use their own risk-management systems can enter values that assure the Exchange parameters will not be triggered. Accordingly, the proposed rule change provides Market-Makers with

<sup>&</sup>lt;sup>55</sup> See, e.g., BOX Rule 7280 (b) and PHLX Rule 1019(b).

flexibility to use their own risk management tools. The Exchange notes other exchanges make similar functionality mandatory for all Market-Makers.<sup>56</sup>

The individual firm benefits of enhanced risk protections flow downstream to counterparties both at the Exchange and at other options exchanges, which increases systemic protections as well. The Exchange believes these risk protections will allow TPHs to enter orders and quotes with reduced fear of inadvertent exposure to excessive risk, which will benefit investors through increased liquidity for the execution of their orders, thereby protecting investors and the public interest. Without adequate risk management tools, such as those proposed in this filing, TPHs could reduce the amount of order flow and liquidity they provide. Such actions may undermine the quality of the markets available to customers and other market participants. Accordingly, the proposed rule change is designed to encourage TPHs to submit additional order flow and liquidity to the Exchange, thereby removing impediments to and perfecting the mechanisms of a free and open market and a national market system and, in general, protecting investors and the public interest. In addition, providing TPHs with more tools for managing risk will facilitate transactions in securities because, as noted above, TPHs will have more confidence protections are in place that reduce the risks from potential system errors and market events. As a result, the new functionality as the potential to promote just and equitable principles of trade.

The Exchange notes TPHs must be mindful of their obligations to seek best execution of orders handled on an agency basis. Decisions to use the optional functionality described in this filing (i.e., cancellation of orders when an acronym or log-

<sup>56 &</sup>lt;u>See, e.g.</u>, ISE Rule 804(g).

in becomes restricted after exceeding the orders entered or contracts executed rate, cancellation of orders upon initiation of a kill switch), and decisions on values of parameters (i.e., parameters for the orders entered, contracts executed and price parameter rate check, maximum contract size check), must be made consistent with this duty.

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

CBOE 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 proposed rule change adds price protection mechanisms and risk controls for orders and quotes of all Trading Permit Holders submitted to CBOE to help further prevent potentially erroneous executions, which benefits all market participants. mechanisms and controls apply to orders of all TPHs, and quotes of all Market-Makers, in the same manner. The proposed rule changes related to the quote inverting NBBO check, the execution of quotes that lock or cross the NBBO check, and QRM apply only to Market-Makers because only Market-Makers may submit quotes under the Rules, and because similar protections applicable to orders are in place or also proposed in this rule filing. Additionally, the Exchange believes these types of protection for Market-Makers are appropriate given their unique role in the market and may encourage Market-Makers to quote tighter and deeper markets, which will increase liquidity and enhance competition, given the additional protection these price checks will provide. Exchange believes the proposed rule change would provide market participants with additional protection from risks related to erroneous executions. Certain of the proposed protections are similar to those available on other exchanges.<sup>57</sup>

While the proposed rule change makes entry of parameters into the QRM mechanism mandatory, the Exchange notes all Market-Makers currently avail themselves of this mechanism today. Additionally, the Exchange believes the use of QRM will prevent the inadvertent entry of quotes without risk-management parameters. Market-Makers who prefer to use their own risk-management systems can enter out-of-range values so the Exchange-provided parameters will not be triggered and can function as back-up protection. While entering values for the QRM parameters will be mandatory to prevent inadvertent exposure to risk, the Exchange notes Market-Makers who prefer to use their own risk-management systems can enter values that assure the Exchange parameters will not be triggered. Accordingly, the proposed rule change provides Market-Makers with flexibility to use their own risk management tools. The Exchange notes other exchanges make similar functionality mandatory for all Market-Makers.<sup>58</sup>

With respect to the proposed kill switch functionality, all TPHs may avail themselves of the kill switch, which functionality is optional. The proposed rule change is intended to protect TPHs in the event they experience a systems issue or unusual or unexpected market activity that would require them to withdraw from the market to protect investors. The ability to control risk at either the acronym or login level will permit a TPH to protect itself from inadvertent exposure to excessive risk at each level. Reducing such risk will enable TPHs to enter quotes and orders with protection against

<sup>57 &</sup>lt;u>See, e.g.</u>, ISE Rule 714(d) and MIAX Rule 519A (order entry and execution rate checks); and MIAX Rule 519(b) (order contract size).

See, e.g., ISE Rule 804(g).

inadvertent exposure to excessive risk, which in turn will benefit investors through increased liquidity for the execution of their orders. Such increased liquidity benefits investors because they may receive better prices and because it may lower volatility in the options market. Additionally, the proposed kill switch functionality is similar to that available on other exchanges.<sup>59</sup>

The proposed rule change to permit the Exchange to share TPH-designated risk settings with Clearing TPHs that clear transaction on behalf of the TPH is not designed to address any competitive issues and does not pose any undue burden on non-Clearing TPHs because, unlike Clearing TPHs, non-Clearing TPHs do not guarantee the execution of transactions on the Exchange. The proposed rule change applies the same to all TPHs and Clearing TPHs. Any TPH that does not wish to have the Exchange share designated risk settings with its Clearing TPHs could avoid this by becoming a clearing member of the Clearing Corporation. The Exchange notes other exchanges' rules permit sharing of these settings with clearing members.<sup>60</sup>

The individual firm benefits of enhanced risk protections flow downstream to counterparties both at the Exchange and at other options exchanges, which increases systemic protections as well. The Exchange believes these risk protections will allow TPHs to enter orders and quotes with reduced fear of inadvertent exposure to excessive risk, which will benefit investors through increased liquidity for the execution of their orders. Without adequate risk management tools, such as those proposed in this filing, TPHs could reduce the amount of order flow and liquidity they provide. Such actions

<sup>&</sup>lt;sup>59</sup> See, e.g., BOX Rule 7280(b) and PHLX Rule 1019(b).

See, e.g., MIAX Rule 500; BOX Chapter VI, Section 20; NYSE Arca Rule 6.2A(a); NYSE MKT Rule 901.1NY(a); and PHLX Rule 1016 (sharing TPH-designated risk settings).

may undermine the quality of the markets available to customers and other market participants. Accordingly, the proposed rule change is designed to encourage TPHs to submit additional order flow and liquidity to the Exchange, which may ultimately promote competition. In addition, providing TPHs with more tools for managing risk will facilitate transactions in securities because, as noted above, TPHs will have more confidence protections are in place that reduce the risks from potential system errors and market events.

Based on discussions with TPHs regarding its current and proposed package of risk controls and price protection mechanisms, the Exchange understands TPHs support the implementation of price protection mechanisms such as these and expects TPHs to input settings that are meaningful so they can take full advantage of the benefits these mechanisms are intended to provide.

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

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

# III. <u>Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action</u>

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

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

## **IV.** Solicitation of Comments

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

#### Electronic comments:

- Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to <u>rule-comments@sec.gov</u>. <u>Please include File Number</u>
   SR-CBOE-2016-053 on the subject line.

### Paper comments:

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

All submissions should refer to File Number SR-CBOE-2016-053. 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, D.C. 20549 on official business days between the hours of 10:00 a.m.

and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; 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 to File Number SR-CBOE-2016-053 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.<sup>61</sup>

Secretary

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#### **EXHIBIT 5**

(additions are underlined; deletions are [bracketed])

\* \* \* \* \*

# Chicago Board Options Exchange, Incorporated Rules

\* \* \* \* \*

## Rule 6.2B. Hybrid Opening System ("HOSS")

(a) - (h) No change.

... Interpretations and Policies:

**.01 – .02** No change.

- .03 HAL Opening Procedure: This Interpretation and Policy governs the operation of the Hybrid Agency Liaison ("HAL") for openings for a trading session. The Exchange shall designate the classes in which HAL shall be activated for openings. The Exchange shall also determine on a class-by-class basis the exposure period (which period of time shall not exceed 1.5 seconds) and allocation period (which period of time, when combined with the designated exposure time period (as opposed to an exposure period that is terminated early), shall not exceed a total of 3 seconds). For such classes, the following procedures shall apply in lieu of paragraph (e) above.
- (a) (b) No change.
- (c) For purposes of this Interpretation and Policy:
  - (i) No change.
  - (ii) The exposure process will be conducted via HAL pursuant to Rule 6.14A. In addition, any remaining balance of orders not executed via HAL on the opening that are priced or would be executed at a price that is not within an acceptable tick distance from the initial HAL price will route via the order handling system pursuant to Rule 6.12 (except that any remaining balance of opening contingency orders will be cancelled). An "acceptable tick distance" shall be determined by the Exchange on a [series]class-by-[series]class and premium basis and shall be no less than 2 minimum increment ticks. For classes in which HAL is activated, the acceptable tick distance will be the same as the acceptable tick distance established under Rule 6.13(b)(v)(B).

.04 – .08 No change.

\* \* \* \* \*

## Rule 6.12. CBOE Hybrid Order Handling System

This rule describes the process for routing orders through the Exchange's order handling system in classes designated for trading on the CBOE Hybrid System. The order handling system is a feature within the Hybrid System to route orders for automatic execution, book entry, open outcry, or further handling by a broker, agent, or PAR Official, in a manner consistent with Exchange Rules and the Act (e.g., resubmit the order to the Hybrid System for automatic execution, route the order from a booth to a PAR workstation, cancel the order, contact the customer for further instructions, and/or otherwise handle the order in accordance with Exchange Rules and the order's terms [.]).

- (a) Orders may route through the order handling system for electronic processing in the Hybrid System or to a designated order management terminal or PAR Workstation in any of the circumstances described below. Routing designations may be established based on various parameters defined by the Exchange, order entry firm or Trading Permit Holder, as applicable.
  - (1) (2) No change.
  - (3) Limit Order Price Parameter for Simple Orders: The System rejects back to a Trading Permit Holder an order to buy (sell) at more than an acceptable tick distance above (below)[Limit orders will route directly from an order entry firm to an order management terminal designated by the order entry firm when initially routed to the Exchange] if:
    - (i) prior to the opening of a series (including during any pre-opening period and opening rotation), [before a series is opened following a halt), the order is to buy at more than an acceptable tick distance above] (A) the last disseminated NBO (NBB), if a series is open on another exchange(s), or (B) the Exchange's previous day's closing[e] price, if a series is not yet open on any other exchange; if the NBBO is locked, crossed or unavailable; or if there is no NBO (NBB) and the previous day's closing price is greater (less) than or equal to the NBB (NBO). [or the order is to sell at more than an acceptable tick distance below the Exchange's previous day's close (this subparagraph is not applicable] However, this does not apply to orders of Exchange Market-Makers or away Market-Makers;[), or] if there is no NBO (NBB) and the Exchange's previous day's closing price is less (greater) than the NBB (NBO); or if there is no NBBO and no Exchange previous day's closing price;
    - (ii) <u>intraday</u>, [once a series has opened, the order is to buy at more than an acceptable tick distance above] (A) the <u>last</u> disseminated <u>NBO</u> (NBB) or (B) the <u>Exchange's best offer</u> (bid), if the NBBO is locked, crossed or unavailable. However, this does <u>not apply if there is no NBBO and no BBO; or [Exchange offer or the order is to sell at more than an acceptable tick distance below the disseminated Exchange bid]</u>
    - (iii) during a halt (including during any pre-opening period or opening rotation prior to re-opening following the halt), the last disseminated NBO (NBB). However, this does not apply to a buy (sell) order if the NBBO is locked, crossed or unavailable or if there is no NBO (NBB).

For purposes of this subparagraph (a)(3): An "acceptable tick distance" (which is referred to as an "ATD"), as determined by the Exchange on a [series by series]class-by-class and premium basis and announced to the Trading Permit Holders via Regulatory Circular, shall be no less than [5]2 minimum increment ticks for simple orders. The Exchange may determine to apply a different ATD to orders entered during the preopening, a trading rotation, or a trading halt. The [Exchange may also determine on a class by class basis and announce via Regulatory Circular whether to apply]checks in subparagraphs [(a)(3)](i) through [and/or](iii) do not apply to [immediate-or-cancel]orders with a stop contingency or to orders routed from a PAR workstation or order management terminal. The limit order price parameter will take precedence over another routing parameter to the extent that both are applicable to an incoming limit order.

- (4) (7) No change.
- (b) No change.
- ... Interpretations and Policies:
- .01 No change.

\* \* \* \* \*

# **Rule 6.13. CBOE Hybrid System Automatic Execution Feature** (a) No change.

- **(b) Automatic Execution:** Orders eligible for automatic execution through the CBOE Hybrid System may be automatically executed in accordance with the provisions of this Rule, Rule 6.13A or 6.14A, as applicable. This section governs automatic executions and split-price automatic executions. The automatic execution and allocation of orders or quotes submitted by market participants also is governed by Rules 6.45A(c) and (d) and Rules 6.45B(c) and (d).
  - (i) (iv) No change.
  - (v) Market-Width and Drill Through Price Check Parameters: (A) Market-Width Price Check Parameter. The CBOE Hybrid System will route via the order handling system pursuant to Rule 6.12[not automatically execute] an eligible market order[s that are marketable] if [(1)] the width between the national best bid and national best offer is not within an acceptable price range ("APR")[ (as determined by the Exchange on a series-by-series basis for market orders and/or marketable limit orders and announced to the Trading Permit Holders via Regulatory Circular)]. The Exchange will determine the APR on a class-by-class basis, which the Exchange will announce by Regulatory Circular and will be no less than: \$0.375 between the bid and offer for each option contract for which the bid is less than \$2, \$0.60 where the bid is at least \$2 but does not exceed \$5, \$0.75 where the bid is more than \$5 but does not exceed \$10, \$1.20 where the bid is more than \$10 but does not exceed \$20, and \$1.50 where the bid is more than \$20. [, or (2) the execution would follow an initial partial execution on the Exchange and would be at a subsequent price that is not within an acceptable tick distance from the

initial execution (as determined by the Exchange on a series by series and premium basis for market orders and/or marketable limit orders and announced to the Trading Permit Holders via Regulatory Circular). For purposes of this subparagraph:]

- [(A) An "acceptable price range" ("APR") shall be determined by the Exchange on a series-by-series basis and shall be no less than: \$0.375 between the bid and offer for each option contract for which the bid is less than \$2, \$0.60 where the bid is at least \$2 but does not exceed \$5, \$0.75 where the bid is more than \$5 but does not exceed \$10, \$1.20 where the bid is more than \$10 but does not exceed \$20, and \$1.50 where the bid is more than \$20. An "acceptable tick distance" ("ATD") shall be no less than 2 minimum increment ticks.]
- (B) <u>Drill Through Price Check Parameter</u>. (I) If a buy (sell) order not exposed via HAL (pursuant to Rule 6.14A) partially executes, and the System determines the unexecuted portion of the order would execute at a subsequent price higher (lower) than the price that is an acceptable tick distance ("ATD") above (below) the NBO (NBB) ("drill through price"), the System will not automatically execute that portion and will expose that portion via HAL at the drill through price (if eligible for HAL). The Exchange will determine the ATD on a class and premium basis (which may be no less than two minimum increment ticks), which the Exchange will announce via Regulatory Circular.
  - (II) If a buy (sell) order is exposed via HAL (other than pursuant to subparagraph (I)) or SAL and, following the exposure period pursuant to Rule 6.14A or 6.13A, respectively, the System determines the order (or any unexecuted portion) would execute at a price higher (lower) than the drill through price, the System will not automatically execute that order (or unexecuted portion).
  - (III) Any order (or portion) not executed pursuant to subparagraphs (I) or (II) above will rest in the book (based on the time at which it enters the book for priority purposes) for a time period in milliseconds (which the Exchange will determine and announce via Regulatory Circular and will not exceed three seconds) with a price equal to the drill through price (except orders (or any unexecuted portions) that by their terms cancel if they do not execute immediately (such as immediate-or-cancel, fill-or-kill, intermarket sweep, and market-maker trade prevention orders) will be cancelled). If any order (or any unexecuted portion) does not execute during that time period, the System cancels it.
  - (IV) Notwithstanding subparagraphs (I) to (III), if the System determines a buy (sell) order (or any unexecuted portion) not eligible for HAL or SAL pursuant to Rule 6.14A or 6.13A, respectively, would execute at a subsequent price higher (lower) than the drill through price, the System will not automatically execute that order (or unexecuted portion) and will route it via the order handling system pursuant to Rule 6.12 (except orders (or any unexecuted portions) that by their terms cancel if they do not execute immediately (such as immediate-or-cancel,

fill-or-kill, intermarket sweep, and market-maker trade prevention orders) will be cancelled).

(V) This subparagraph (B) does not apply to executions of orders following an exposure via HAL at the open, which are subject to the drill through protection in Rule 6.2B, Interpretation and Policy .03(c)(ii).

(C) [The]A senior [official on the Exchange ]Help Desk official or two Floor Officials may grant intra-day relief by widening or inactivating one or more of the applicable APR and/or ATD parameter settings for subparagraphs (A) and (B) in the interest of a fair and orderly market[. (I) Notification of intra-day relief], which the Exchange will [be ]announce[d] as soon as reasonably practical via verbal message to the trading floor, order management terminal message to TPH organizations on the trading floor, and electronic message to Trading Permit Holders that request to receive such messages. Such intra-day relief may not extend beyond the trade day on which it is granted, unless a determination to extend such relief is announced to Trading Permit Holders via Regulatory Circular. The Exchange will make and keep records to document all determinations to grant intra-day relief under this Rule, and [shall ]maintain those records in accordance with Rule 17a-1 under the Exchange Act. [(II) ]The Exchange will periodically review determinations to grant intra-day relief for consistency with the interest of a fair and orderly market.

[If an execution is suspended because the market width APR has not been met, the order will route via the order handling system pursuant to Rule 6.12.

If an execution is suspended because executing the remaining portion of an order would exceed the drill through ATD, then such remaining portion will be exposed pursuant to the HAL process in Rule 6.14A using the ATD as the exposure price. If a quantity remains at the conclusion of the HAL process or if the order has already been subject to the HAL process or if the order is not eligible for HAL, the remaining quantity will route via the order handling system pursuant to Rule 6.12.]

- (vi) No change.
- (c) No change.

### Rule 6.13A. Simple Auction Liaison (SAL)

This Rule governs the operation of the SAL system. SAL is a feature within the Hybrid System that auctions marketable orders for price improvement over the NBBO.

- (a) (d) No change.
- (e) Any order (or portion) that does not execute following the auction will be handled as set forth in Rule 6.13(b)(v)(B)(III).
- ... Interpretations and Policies:
- **.01 .05** No change.

\* \* \* \* \*

#### Rule 6.14. Price Protections and Risk Controls

The System's acceptance and execution of orders and quotes are subject to the price protection mechanisms and risk controls in this Rule 6.14 and otherwise set forth in the Rules. The Exchange may share any Trading Permit Holder-designated risk settings in the Hybrid Trading System with a Clearing Trading Permit Holder that clears Exchange transactions on behalf of the Trading Permit Holder.

- (a) Put Strike Price and Call Underlying Value Checks.
  - (i) The System rejects back to the Trading Permit Holder a quote or buy [limit ]order for:
    - (A) a put if the price of the quote bid or <u>a buy limit</u> order, or the price at which a buy market order (or any remaining size after partial execution), is [equal to or ]greater than <u>or equal to</u> the strike price of the option; or
    - (B) a call if the price of the quote bid or <u>a buy limit</u> order, or the price at which a buy <u>market order</u> (or any remaining size after partial execution) would execute, is [equal to or ]greater than <u>or equal to</u> the consolidated last sale price of the underlying security, with respect to equity and ETF options, or the last disseminated value of the underlying index, with respect to index options.

If the System rejects a Market-Maker's quote pursuant to either check in the above subparagraphs, the System cancels any resting quote of the Market-Maker in the same series.

- (ii) The Exchange may determine not to apply to a class either the put check in subparagraph (i)(A) or the call check in subparagraph (i)(B) above if a senior official at the Exchange's Help Desk determines the applicable check should not apply in the interest of maintaining a fair and orderly market, which the Exchange will announce by electronic message to Trading Permit Holders that request to receive such messages. The Exchange [may also determine]does not [to ]apply the call check in subparagraph (i)(B) to a class during Extended Trading Hours, [which it will announce to Trading Permit Holders by Regulatory Circular. The call check in subparagraph (i)(B) above does not apply ]to adjusted classes or if market data for the underlying is unavailable. The checks in subparagraphs (i)(A) and (B) do not apply to market orders executed during an opening rotation.
- (iii) (iv) No change.
- (b) Quote Inverting NBBO Check. If CBOE is at the NBO (NBB), the System rejects a quote back to a Market-Maker if the quote bid (offer) crosses the NBO (NBB) by more than a number of ticks specified by the Exchange (which will be no less than three minimum increment ticks and announced to Trading Permit Holders by Regulatory Circular). If CBOE is not at the NBO (NBB), the System rejects a quote back to a Market-Maker if the quote bid (offer) locks or crosses the NBO (NBB). If the System rejects a Market-Maker's quote

pursuant to this check, the System also cancels any resting quote of the Market-Maker in the same series.

- (i) When a series is open for trading, [I]if the NBBO is unavailable, locked or crossed, then this check compares the quote to the BBO (if available). If the BBO is also unavailable, then the System does not apply this check to incoming quotes.
- (ii) Prior to the opening of a series (including during any pre-opening period and opening rotation), the System does not apply this check to incoming quotes if the series is not open on another exchange.
- (iii) During a trading halt, [The Exchange may determine]the System does not [to ]apply this check to [a]incoming quotes[ entered during the pre-opening, a trading rotation, or a trading halt, which the Exchange will announce to Trading Permit Holders by Regulatory Circular].
- (iv) [Additionally, a]A senior official at the Exchange's Help Desk may determine not to apply this check in the interest of maintaining a fair and orderly market.
- [iii](c) Execution of Quotes That Lock or Cross NBBO. If the System accepts a quote that locks or crosses the NBBO, the System executes the quote bid (offer) against quotes and orders in the Book at a price(s) that is the same or better than the best price disseminated by an away exchange(s) up to the size available on the Exchange and either ([A]i) cancels any remaining size of the quote, if the price of the quote locks or crosses the price disseminated by the away exchange(s) or ([B]ii) books any remaining size of the quote, if the price of the quote does not lock or cross the price of the away exchange(s)[; provided, that if a quote inverts another quote, it is subject to Rule 6.45A(d)(ii) or 6.45B(d)(ii), as applicable].
  - (1) If the NBBO is locked, crossed or unavailable, then the System does not apply this check to incoming quotes. Additionally, a senior official at the Exchange's Help Desk may determine not to apply this check in the interest of maintaining a fair and orderly market.
  - (2) If the Exchange has established a counting period for a class pursuant to Rule 6.45A(d)(i) or 6.45B(d)(i), then notwithstanding Rule 6.45A(d) or 6.45B(d), if CBOE (represented by a Market-Maker quote offer (bid)) and an away exchange(s) are each at the NBO (NBB), the System rejects an incoming Market-Maker quote bid (offer) (or unexecuted portion after the quote trades against any orders resting in the Book at the NBO (NBB)) that locks or crosses the resting Market-Maker quote offer (bid) at the NBO (NBB).

- (d) Order Entry, Execution and Price Parameter Rate Checks. (i) Each Trading Permit Holder must provide to the Exchange parameters for an acronym or, if the Trading Permit Holder requests, a login, for each of the following rate checks. The System counts each of the following over rolling time intervals, which the Exchange will set and announce via Regulatory Circular:
  - (A) the total number of orders (of all order types) and auction responses entered and accepted by the Hybrid Trading System ("orders entered");
  - (B) the total number of contracts (from orders and auction responses) executed on the Hybrid Trading System, which does not count executed contracts from orders submitted from a PAR workstation or an order management terminal or stock contracts executed as part of stock-option orders ("contracts executed");
  - (C) the total number of orders the Hybrid Trading System books or routes via the order handling system pursuant to the drill through price check parameter in Rule 6.13(b)(v)(B) ("drill through events"); and
  - (D) the total number of orders the Hybrid Trading System cancels or routes via the order handling system due to the limit order price parameter in Rule 6.12(a)(3) through (5) ("price reasonability events").
  - (ii) When the System determines the orders entered, contracts executed, drill through order events or price reasonability events within the applicable time interval exceeds a Trading Permit Holder's parameter, the System (A) rejects all subsequent incoming orders and quotes, (B) cancels all resting quotes (if the acronym or login is for a Market-Maker), and (C) for the orders entered and contracts executed checks, if the Trading Permit Holder requests, cancels resting orders (either all orders, orders with time-inforce of day, or orders entered on that trading day) for the acronym or login, as applicable.
  - (iii) The System will not accept new orders or quotes from a restricted acronym or login, as applicable, until the Exchange receives the Trading Permit Holder's manual notification (in a form and manner determined by the Exchange, which will be announced by Regulatory Circular) to reactivate its ability to send orders and quotes for the acronym or login. While an acronym or login is restricted, a Trading Permit Holder may continue to interact with orders entered prior to its acronym or login becoming restricted, including receiving trade execution reports and canceling resting orders.
- (e) Maximum Contract Size. The System rejects a Trading Permit Holder's incoming order or quote (including both sides of a two-sided quote) if its size exceeds the maximum contract size designated by the Trading Permit Holder. Each Trading Permit Holder must provide a maximum contract size for each of simple orders, complex orders (the contract size for which equals the contract size of the largest option leg of the order) and quotes applicable to an acronym or, if the Trading Permit Holder requests, a login.
  - (i) If a Trading Permit Holder enters an order or quote to replace a resting order or update a resting quote, respectively, and the System rejects the incoming order or quote

because it exceeds the applicable maximum contract size, the System also cancels the resting order or any resting quote in the same series.

- (ii) This check also applies to pairs of orders submitted to AIM, SAM or as a QCC order. If the System rejects either order in the pair, then the System also rejects the paired order. Notwithstanding the foregoing, with respect to an A:AIR order, if the System rejects the Agency Order, then the System rejects the contra-side order; however, if the System rejects the contra-side order, the System still accepts the Agency Order.
- (f) Kill Switch. (i) A Trading Permit Holder may send a message to the Hybrid Trading System to, or contact the Exchange Help Desk to request that the Exchange, cancel all its resting quotes (if the acronym or login is for a Market-Maker), resting orders (either all orders, orders with time-in-force of day, or orders entered on that trading day), or both, for an acronym or login. The System will send a Trading Permit Holder an automated message when it has processed a kill switch request for an acronym or login.
  - (ii) Once a Trading Permit Holder initiates the kill switch for an acronym or login, the System rejects all subsequent incoming orders and quotes for the acronym or login, as applicable. The System will not accept new orders or quotes from a restricted acronym or login until the Exchange receives the Trading Permit Holder's manual notification (in a form and manner determined by the Exchange, which will be announced by Regulatory Circular) to reactivate its ability to send orders and quotes for the acronym or login. While an acronym or login is restricted, a Trading Permit Holder may continue to interact with orders entered prior to its acronym or login becoming restricted, including receiving trade execution reports and canceling resting orders.

### Rule 6.14A. Hybrid Agency Liaison (HAL)

This Rule governs the operation of the Hybrid Agency Liaison ("HAL") system. HAL is a feature within the Hybrid System that provides automated order handling in designated classes trading on Hybrid for qualifying electronic orders that are not automatically executed by the Hybrid System.

- (a) *HAL Eligibility*. The Exchange shall designate eligible order size, eligible order type, eligible order origin code ([]i.e., public customer orders, non-Market Maker broker-dealer orders, and Market Maker broker-dealer orders), and classes in which HAL shall be activated. HAL shall automatically process upon receipt:
  - (i) (iii) No change.
  - (iv) an order (or any unexecuted portion) submitted to HAL [as a result of the price check parameters of]pursuant to Rule 6.13(b)(v)(B)(I).
- (b) Order Handling and Responses. Upon receipt by HAL, the System will immediately expose electronically [O]orders at the NBBO price, if [that are ]received [by HAL] pursuant to subparagraphs (a)(i) through (iii), or at the better of the NBBO and the drill through price (as defined in Rule 6.13(b)(v)(B)), if received pursuant to subparagraph (a)(iv)[above shall immediately upon receipt be electronically exposed at the NBBO price]. The exposure shall

be for a period of time determined by the Exchange on a class-by-class basis, which period of time shall not exceed 1 second.

Market-Makers with an appointment in the relevant option class and Trading Permit Holders acting as agent for orders resting at the top of the Exchange's book in the relevant option series opposite the order submitted to HAL may submit responses to the exposure message during the exposure period, unless the Exchange determines, on a class-by-class basis, to allow all Trading Permit Holders to submit responses to the exposure message.

Responses (i) must be priced equal to or better than the Exchange's best bid/offer; (ii) must be limited to the size of the order being exposed; and (iii) may be cancelled and/or replaced any time during the exposure period.

(c) Allocation of Exposed Orders. Any responses priced at the prevailing NBBO or better shall immediately trade against the order (on a first come, first served basis). At the conclusion of the exposure period, the Exchange will evaluate all remaining responses as well as the disseminated best bid/offer on other exchanges and execute any remaining portion of the exposed order to the fullest extent possible at the best price(s) by first executing against responses (pursuant to the matching algorithm in effect for the class except that the participation entitlement and market turner status shall not apply to responses), and, second, routing IOC ISOs to other exchanges. Any portion of a routed IOC ISOs that returns unfilled shall trade against the Exchange's best bid/offer unless another exchange is quoting at a better price in which case new IOC ISOs shall be generated and routed to trade against such better prices. Any executions at the Exchange's best bid/offer will first trade against interest that was resting at the price at the time the exposed order was received, and any remaining balance will trade against all new interest at that price (in both cases pursuant to the matching algorithm for that class). All executions on the Exchange pursuant to this paragraph shall comply with Rule 6.81. Executions will be subject to the price check parameter[s] set forth in Rule 6.13(b)(v)(B) when such price check functionality is enabled, and any unexecuted portion of an order that does not execute following the exposure period will be handled as set forth in Rule 6.13(b)(v)(B)(III).

(d) No change.

... Interpretations and Policies:

**.01** – **.03** No change.

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### Rule 8.18. Quote Risk Monitor Mechanism

Each Market-Maker who is obligated to provide and maintain continuous electronic quotes (as defined in Rule 1.1(ccc)) in an option class traded on the Hybrid Trading System ("Hybrid Market-Maker"), or the TPH organization with which the Hybrid Market-Maker is associated, [may]must establish parameters for an acronym or firm, as applicable, for each function below applicable to each trading session by which the Exchange will activate the Quote Risk Monitor ("QRM") Mechanism.

The functionality of the QRM Mechanism that is available to Hybrid Market-Makers includes, for each such option class in which the Hybrid Market-Maker is engaged in trading: (i) a maximum number of contracts for such option class (the "Contract Limit") and a rolling time period in milliseconds within which such Contract Limit is to be measured (the "Measurement Interval"); (ii) a maximum cumulative percentage that the Hybrid Market-Maker is willing to trade (the "Cumulative Percentage Limit"), where the cumulative percentage is the sum of the percentages of the original quoted size of each side of each series that traded, and a Measurement Interval; and (iii) the maximum number of series for which either side of the quote is fully traded (the "Number of Series Fully Traded") and a Measurement Interval. [This functionality is optional and Hybrid Market-Makers are not required to set parameters for the aforementioned QRM Mechanism functions.]

When the Exchange determines that the Hybrid Market-Maker has traded at least the Contract Limit or Cumulative Percentage Limit for such option class on a trading platform during any rolling Measurement Interval, or has traded at least the Number of Series Fully Traded on an option class on a trading platform during any rolling Measurement Interval, the QRM Mechanism shall cancel all electronic quotes being disseminated on the same trading platform with respect to that Hybrid Market-Maker in that option class and any other classes with the same underlying security until the Hybrid Market-Maker refreshes those electronic quotes. Such action by the Exchange is referred to herein as a QRM Incident. Once the QRM Mechanism is triggered, all counters that determine whether the QRM Mechanism is triggered and a QRM Incident occurs will be reset for all classes for which quotes were canceled for all parties for whom such quotes were canceled.

A Hybrid Market-Maker or a TPH organization may also specify a maximum number of QRM Incidents on an Exchange-wide basis. When the Exchange determines that such Hybrid Market-Maker or TPH organization has reached its QRM Incident limit during any rolling Measurement Interval, the QRM Mechanism shall cancel all of the Hybrid Market-Maker's or TPH organization's electronic quotes and Market-Maker orders resting in the Book in all option classes on the Exchange and prevent the Hybrid Market-Maker or TPH organization from sending additional quotes or orders to the Exchange until the Hybrid Market-Maker or TPH organization reactivates its ability to send quotes or orders in a manner prescribed by the Exchange. Once the QRM Mechanism is triggered and quotes and orders are cancelled, all counters that determine whether the QRM Mechanism is triggered and a QRM Incident occurs will be reset for all parties for whom the QRM Mechanism was triggered and for all classes for which quotes and orders were canceled. If the Exchange cancels all of the Hybrid Market-Maker's or TPH organization's electronic quotes and Market-Maker orders resting in the Book, and the Hybrid Market-Maker or TPH organization does not reactivate its ability to send quotes or orders, the block will be in effect only for the trading day that the Hybrid Market-Maker or TPH organization reached its QRM Incident limit. [Hybrid Market-Makers and TPH organizations are not required to set parameters for the Exchange-wide QRM.]

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