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## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-76585; File No. SR-CBOE-2015-107]

December 8, 2015

Self-Regulatory Organizations; Chicago Board Options Exchange, Incorporated; Notice of Filing of a Proposed Rule Change, as Modified by Amendment No. 1 Thereto, Relating to Price Protection Mechanisms

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 November 24, 2015, 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. On December 4, 2015, the Exchange filed Amendment No. 1 to the proposal.<sup>3</sup> The Commission is publishing this notice to solicit comments on the proposed rule change, as modified by Amendment No. 1, from interested persons.

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

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

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

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

<sup>3</sup> In Amendment No. 1, the Exchange proposed changes to amend the proposed rule text of Rule 6.53C, Interpretation and Policy .08(c) in Exhibit 5 and the purpose and statutory basis sections of each of the Form 19b-4 and Exhibit 1 regarding the applicability of the proposed enhancement to the debit/credit price reasonability check to index options with European-style exercises. The Exchange also amended Item 7(d) of the Form 19b-4 to delete redundant language.

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

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

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

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

1. Purpose

The Exchange has in place various price check mechanisms that are designed to prevent incoming orders from automatically executing at potentially erroneous prices.<sup>4</sup> These mechanisms 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. The Exchange proposes to adopt Rule 6.14, which was previously deleted, and amend Rule 6.53C, Interpretation and Policy .08, to add new, as well as enhance current, price protection mechanisms for orders and quotes to help further prevent potentially erroneous executions.

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<sup>4</sup> See, e.g., Rules 6.12(a)(3) and (4) (limit order price parameters), 6.13(b)(v) (market-width and drill-through price check parameters), 6.53C, Interpretation and Policy .08 (price check parameters for complex orders), and 8.18 (quote risk monitor).

## Put Strike Price and Call Underlying Value Checks

Proposed Rule 6.14(a) provides price protections for simple orders to buy put and call options based on the strike price or underlying value, respectively. The proposed rule provides that the System<sup>5</sup> will reject back to the Trading Permit Holder a quote<sup>6</sup> or buy limit order for (i) a put if the price of the quote bid or order is equal to or greater than the strike price of the option or (ii) a call if the price of the quote bid or order is equal to or greater than the consolidated last sale price of the underlying security, with respect to equity and exchange-traded fund (“ETF”) options, or the last disseminated underlying index value, with respect to index options.<sup>7</sup>

With respect to put options, a Trading Permit Holder 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. Pursuant to proposed Rule 6.14(a)(i)(A), the Exchange would deem any put bid or buyer order with a price that equals or exceeds the strike price of the option

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<sup>5</sup> The “System” refers to the Exchange’s Hybrid Trading System, which is (i) the Exchange’s trading platform that allows Market-Makers to submit electronic quotes in their appointed classes and (ii) any connectivity to the foregoing trading platform that is administered by or on behalf of the Exchange, such as a communications hub.

See Rule 1.1(aaa).

<sup>6</sup> The term quote includes both sides of a quote that is entered as a two-sided quote.

<sup>7</sup> These price checks would also apply to buy auction responses submitted in the various Exchange auctions, such as the Hybrid Agency Liaison (“HAL”) and the Automated Improvement Mechanism (“AIM”). See proposed Rule 6.14(a)(iii). The Exchange believes responses can cause erroneous executions in the same manner as quotes and orders and thus should be subject to this proposed price protection to further help prevent potentially erroneous executions.

to be erroneous, and the Exchange believes it would be appropriate to reject these bids and buy orders.

With respect to call options, a Trading Permit Holder seeks to buy an option that could be exercised into the right to buy the underlying. The Exchange does not believe that 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 just purchase the underlying at the prevailing value rather than pay a larger amount for the call. Accordingly, pursuant to proposed Rule 6.14(a)(i)(B), the Exchange believes it is appropriate to reject bids or buy orders for call options with prices that are equal to or in excess of the value of the underlying. As an example, suppose a Trading Permit Holder submits Order 1 to buy an ABC call for \$8 and Order 2 to buy an ABC call for \$11 when the last sale price for stock ABC is \$10. Because the price to buy for Order 2 is greater than the last sale price of the underlying, the System will reject Order 2. The System will either execute or book Order 1 in accordance with CBOE's rules.

Pursuant to the proposed rule, with respect to equity and ETF options, the Exchange would use the consolidated last sale price of the underlying security, with respect to equity and ETF options, and the last disseminated value of the underlying index, with respect to index options. The Exchange notes that, in certain circumstances, the last sale price or index value, as applicable, may be from the close of the previous trading day. These circumstances include during the pre-opening period or a delayed opening.

As an additional risk control feature, if a Market-Maker submits a quote in a series in which the Market-Maker already has a resting quote (thus, was attempting to update a quote) and the System rejects that quote pursuant to either of these proposed checks, the System will cancel

the Market-Maker's resting quote<sup>8</sup> in the series. 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 in part on the spreads of their quotes, and rejecting and cancelling, as applicable, quotes on both sides of the series is consistent with this practice. The Exchange believes this operates as an additional safeguard that causes the Market-Maker to re-evaluate its quotes in the series before attempting to update its quotes again. Additionally, when a Market-Maker submits a new quote, that Market-Maker is implicitly instructing the Exchange to cancel any resting quote in the same series. Thus, even if the new quote is rejected as a result of this proposed check, the Market-Maker's implicit instruction to cancel the resting quote remains valid nonetheless.

As an example, suppose a Market-Maker has a resting two-sided quote in Series 1 for stock ABC of 14.00 to 16.00. The options in Series 1 are puts with a strike price of \$18.00. The Market-Maker submits an updated two-sided quote of 18.00 to 19.00. Because the quote bid is the same as the strike price for Series 1, the System will reject the 18.00 quote bid and the 19.00 quote offer. Additionally, the System will cancel the Market-Maker's resting quote in Series 1 of 14.00 to 16.00. The Market-Maker then submits a new two-sided quote of 16.00 to 17.00, which the System accepts.

Proposed Rule 6.14(a)(ii) provides that the Exchange may determine not to apply to a class either the put check or the call check described above if a senior official at the Exchange's Help Desk determines it should not apply in the interest of maintaining a fair and orderly

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<sup>8</sup>

This includes any quote on the same side and opposite side in the series.

market.<sup>9</sup> The Exchange may also determine not to apply the call check to a class during Extended Trading Hours (which the Exchange will announce to Trading Permit Holders by Regulatory Circular). Additionally, the call check does not apply to adjusted classes or if the data for the underlying is not available. As these price checks are intended to assist with the maintenance of fair and orderly markets, the Exchange may believe it is appropriate to disable either of these checks in response to a market event (for example, if dissemination of data was delayed and resulting in unreliable underlying values). If the data for the underlying is not available (for example, if the underlying exchange is not disseminating data or if the applicable securities information processor is down), then the System cannot perform the check, which is why the check will not apply in that situation. With respect to Extended Trading Hours, the underlying may not always be available (for example, if an underlying index is not calculated during those hours or if an underlying stock is not traded during those hours), or may not be appropriate to use due to decreased liquidity and trading during those hours, and thus the Exchange may determine to not apply the call check during Extended Trading Hours in the interest of maintaining a fair and orderly market. Additionally, the call check does not apply to options in an adjusted series, which is an option series for which, as a result of a corporate action by the issuer of the security underlying such option series, one option contract in the series represents the delivery of other than 100 shares of underlying stock or units. After a corporate action and subsequent adjustment to the existing options, the series receives a new symbol, while exchanges listing options on the underlying security that undergoes a corporate action resulting in an adjusted series will generally list a new standard option series for that underlying. Therefore, because trading of options in adjusted series may not accurately reflect the value of

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<sup>9</sup> Pursuant to Exchange procedures, any decision to not apply the put check or call check, as well as the reason for the decision, will be documented and retained.

the underlying (as the new standard series would), the Exchange believes it appropriate to not apply these checks to options in these series.

To the extent a Trading Permit Holder submits a pair of orders to AIM,<sup>10</sup> the Solicitation Auction Mechanism (“SAM”),<sup>11</sup> or as a qualified cross-contingent order (“QCC order”),<sup>12</sup> these proposed checks will apply to both orders in the pair. If the System rejects either order in the pair pursuant to the applicable check, 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 price checks to be consistent with the intent of the submitted Trading Permit Holder. Notwithstanding the foregoing, with respect to an AIM order that instructs the System to process the agency order as an unpaired order if an AIM auction cannot be initiated (for example, because there are not three Market-Makers quoting in the series as required by Rule 6.74A(a)(4) or if the contra-side order does not stop the agency order at the price required by Rule 6.74A(a)(2) or (3)), if the System rejects the agency order pursuant to the applicable check, then the System will also reject the contra-side order. However, if the System rejects the contra-side order pursuant to the applicable check, the System will accept the agency order (assuming it satisfies the applicable check). The purpose of the contingency to treat the agency order as an unpaired order provides the opportunity for that order (which is a customer of the submitting Trading Permit Holder) to execute despite not entering an AIM auction pursuant to which the order may execute against a facilitation or solicitation order

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<sup>10</sup> See Rule 6.74A for a description of the AIM auction process.

<sup>11</sup> See Rule 6.74B for a description of the SAM auction process.

<sup>12</sup> See Rule 6.53(u) for a definition of QCC orders.

of the Trading Permit Holder. The Exchange believes the proposed rule change is consistent with that contingency.

#### Quote Inverting NBBO Check

Currently, the Exchange applies price reasonability checks to limit orders.<sup>13</sup> Proposed Rule 6.14(b) sets forth a national best bid or offer (“NBBO”) price reasonability check that would apply to Market-Maker quotes. This check would similarly compare quote bids with the national best offer (“NBO”) and quote offers with the national best bid (“NBB”). Specifically, if CBOE is at the NBO (NBB), the System will reject a quote<sup>14</sup> back to a Market-Maker if the quote bid (offer) crosses the NBO (NBB)<sup>15</sup> 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). The System will reject any inbound Market-Maker quotes that do not satisfy these parameters as presumptively erroneous. The Exchange believes that using specified tick distance is appropriate because that is the parameter used for the corresponding limit order reasonability check and because it provides Market-Makers a precise price protection.<sup>16</sup> While the limit order price check parameter indicates the Exchange may set the acceptable tick distance to be no less than five minimum increments, the Exchange believes it is reasonable to be able to set the acceptable tick distance to be tighter for the quote price reasonability check (no less than three minimum

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<sup>13</sup> See Rule 6.12(a)(3).

<sup>14</sup> See supra note 4.

<sup>15</sup> If the NBBO is unavailable, locked or crossed (and thus unreliable), then this check will compare the quote to the Exchange’s best bid or offer (“BBO”) (if available). See proposed Rule 6.14(b)(i).

<sup>16</sup> See supra note 11.

increments) to provide additional protection to Market-Makers given their unique role in the market, which could encourage Market-Makers to quote tighter and deeper markets. The Exchange believes having a minimum tick distance of more than three would be ineffective.

As an additional risk control feature, if a Market-Maker submits a quote in a series in which the Market-Maker already has a resting quote (thus, was attempting to update a quote) and the System rejects that quote pursuant to this proposed check, the System will cancel the Market-Maker's resting quote<sup>17</sup> in the series. 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 in part on the spreads of their quotes, and rejecting and cancelling, as applicable, quotes on both sides of the series is consistent with this practice. The Exchange believes this operates as an additional safeguard that causes the Market-Maker to re-evaluate its quotes in the series before attempting to update its quotes again. Additionally, when a Market-Maker submits a new quote, that Market-Maker is implicitly instructing the Exchange to cancel any resting quote in the same series. Thus, even if the new quote is rejected as a result of this proposed check, the Market-Maker's implicit instruction to cancel the resting quote remains valid nonetheless.

For example, suppose the Exchange has set a tick distance of three in a class. The minimum increment for that class is \$0.05 for series quoted below \$3 and \$0.10 for series quotes at \$3 and above,<sup>18</sup> and the NBBO is 3.10 to 3.40. Suppose a Market-Maker submits a bid of 3.80. Because this bid is more than three ticks above the NBO of 3.40, the System rejects the

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<sup>17</sup> This includes any quote on the same side and opposite side in the series.

<sup>18</sup> See Rule 6.42(3).

bid. Similarly, suppose a Market-Maker submits an offer of 2.85. Because this offer is more than three ticks below the NBB of 3.10, the System rejects the offer.

Proposed Rule 6.14(b)(ii) provides that the Exchange may determine not to apply this proposed check to quotes entered during the pre-opening, a trading rotation or a trading halt, which it will announce to Trading Permit Holders by Regulatory Circular. The Exchange believes it is appropriate to have the ability to not apply this check during the pre-open or opening rotation so that the check does not impact the determination of the opening price. However, the Exchange may determine that there is sufficient information during those times (such as if another exchange is disseminating pricing information) to apply the check. The Exchange also may not want to apply this check during halts, as pricing during that time may be volatile and inaccurate. Additionally, this check will not apply if a senior official at the Exchange's Help Desk determines it should not apply in the interest of maintaining a fair and orderly market.<sup>19</sup> The Exchange believes it is appropriate to have this flexibility to determine times when the check should not apply to respond to market events, such as times of extreme price volatility.

Proposed Rule 6.14(b)(iii) states that if the System accepts a quote that locks or crosses the NBBO (which may occur if the proposed check is not applied to a quote pursuant to the proposed rule or if a quote inverts the NBBO but by no more than the specified number of ticks), the System will execute 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 away exchanges up to the size available on the Exchange. If there is any remaining size of the quote after this execution, the System either (i) cancels any remaining size of the quote, if the price of the quote locks or

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<sup>19</sup> See supra note 7.

crosses the price disseminated by the away exchange(s) or (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).<sup>20</sup> While the Exchange believes Market-Makers are generally willing to accept executions of their quotes that exceed the NBBO to a certain extent, it also believes executions of quotes that exceed the NBBO by too much may be potentially erroneous executions. The Exchange believes blocking these potentially erroneous executions is consistent with expectations of Market-Makers and helps them manage their risk. Cancelling the remaining size of the quote after it partially executes against orders and quotes on the Exchange if the remaining size would be at a price that locks or crosses the best price disseminated from an away market is similarly intended to prevent trade-throughs and displays of crossed markets. Similarly, rejecting quotes that would lock or cross the NBBO if CBOE was not at the NBBO is intended to prevent trade-throughs and displays of locked and crossed markets. Unlike orders that may be routed to other options exchanges for executions, quotes may only execute against quotes or orders on CBOE. Thus, if CBOE is not at the NBBO, a quote may not execute against a quote or order that is at the NBBO.

For example, suppose the NBBO is 1.00 to 1.20, and a Market-Maker submits a quote bid for 100 contracts at 1.24. Assuming this class has a minimum increment of 0.01 and the Exchange set the tick distance for this check at five, the System accepts this quote because it only inverts the NBO by four ticks. CBOE has an order to sell 10 at 1.20, an order to sell 20 at 1.21, an order to sell 10 at 1.22, an order to sell 10 at 1.23 and an order to sell 20 at 1.24 resting

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<sup>20</sup> A quote that inverts another quote will continue to be subject to Rule 6.45A(d)(ii) or 6.45B(d)(ii), which states that the System will not disseminate an internally crossed market (*i.e.*, the CBOE best bid is higher than the CBOE best offer). If a Market-Maker submits a quote that would invert an existing quote, the System will change the incoming quote such that it locks the first quote. Locked markets are handled in accordance with the quote lock provision in Rule 6.45A(d)(i) or 6.45B(d)(i), as applicable. During the lock period, if the existing quote is cancelled subsequent to the time the incoming quote is changed, the incoming quote will automatically be restored to its original terms.

on the book. The best offer disseminated by an away exchange is 1.23. The incoming quote bid will execute against the order to sell at 1.20 (10 contracts), the order to sell at 1.21 (20 contracts), the order to sell at 1.22 (10 contracts) and the order to sell at 1.23 (10 contracts), for a total of 50 contracts. The quote will not execute against the order to sell at 1.24, because that would result in a trade-through of the best disseminated offer from an away exchange of 1.23. The System cancels the remaining 50 contracts, because the bid price of 1.23 would invert the best disseminated market from an away exchange. If, instead, the quote bid in the above example was for 1.22 rather than 1.24, it would execute against the order to sell at 1.20 (10 contracts), the order to sell at 1.21 (20 contracts) and the order to sell at 1.22 (10 contracts). The System would book the remaining 60 contracts of the quote at the bid price of 1.22, which would not lock or cross the best disseminated offer by an away exchange (1.23 in the above example). Alternatively, if in the above example the NBO of 1.20 was disseminated from an away exchange, the System would reject the quote bid of 1.24, because it would cross the best disseminated offer of an away exchange.

#### Debit/Credit Price Reasonability Checks

Current Rule 6.53C, Interpretation and Policy .08(c) provides that the System will not automatically execute certain vertical and butterfly complex orders<sup>21</sup> that appear to be

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<sup>21</sup> The proposed rule change adds definitions for vertical and butterfly complex orders (or spreads) and proposes to use these terms for the various price checks in Interpretation and Policy .08, as applicable, as those are the common trading terms used by market participants in the industry that refer to these strategies. See, e.g., CBOE Options Dictionary, available at <http://www.cboe.com/LearnCenter/Glossary.aspx>; and NASDAQ Options Trading Glossary, available at [http://www.stocks-options-trading.com/glossary\\_options.asp](http://www.stocks-options-trading.com/glossary_options.asp). A “vertical” spread is a two-legged complex order with one leg to buy a number of calls (puts) and one leg to sell the same number of calls (puts) with the same expiration date but different exercise prices. A “butterfly” spread is a three-legged complex order with two legs to buy (sell) the same number of calls (puts) and one leg to sell (buy) twice as many calls (puts), all with the same expiration date but

erroneously priced because the prices are inconsistent with particular complex order strategies.<sup>22</sup>

Specifically, the System will not automatically execute a limit order with a net credit price when it clearly should have been entered at a net debit price, a limit order with a net debit price when it clearly should have been entered at a net credit price, or a market order that would be executed at a net debit price when it clearly should execute at a net credit price.<sup>23</sup>

The proposed rule change expands the applicability of this price check to all complex orders for which the System can determine whether they are debits (orders to buy) or credits (orders to sell). The proposed rule change simplifies the current rule text in subparagraphs (c)(1) and (2) and combines them into proposed subparagraph (c)(1) to state that the System will not automatically execute a limit order for a debit strategy with a net credit price, a limit order for a credit strategy with a net debit price, or a market order for a credit strategy that would be executed at a net debit price.<sup>24</sup> The System will reject back to the Trading Permit Holder any

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different exercise prices, and the exercise price of the middle leg is between the exercise prices of the other legs. If the exercise price of the middle leg is halfway between the exercise prices of the other legs, it is a “true” butterfly; otherwise, it is a “skewed” butterfly.

<sup>22</sup> Pursuant to the introductory paragraph of Rule 6.53C, Interpretation and Policy .08, the current debit/credit price reasonability check in subparagraph (c) does not apply to stock-option orders. The proposed debit/credit price reasonability check will apply to stock-option orders; therefore, the proposed rule change deletes the reference to subparagraph (c) from that introductory paragraph statement.

<sup>23</sup> A market order with a debit strategy that would result in an execution at a net credit price (*i.e.*, the net sale proceeds from the series being sold are more than the net purchase cost of the series being bought) but would normally execute at a net debit price (*i.e.*, the net sale proceeds from the series being sold are less than the net purchase cost of the series being bought) would be a favorable execution for the market order, and thus this price check would not block its execution.

<sup>24</sup> This proposed price check will apply to auction responses. See proposed subparagraph (c)(4). As discussed above, the Exchange believes these responses can cause erroneous executions in the same manner as bids and orders and thus should be subject to this proposed price protection to further help prevent potentially erroneous executions. See supra note 5.

limit order, and cancel any market order (or remaining size after partial execution of the order), that does not satisfy this proposed check.<sup>25</sup>

The System determines whether an order is a debit or credit based on general options volatility and pricing principles, which the Exchange understands are used by market participants in their option pricing models. With respect to options with the same underlying:

- if two calls have the same expiration date, the price of the call with the lower exercise price is more than the price of the call with the higher exercise price;
- if two puts have the same expiration date, the price of the put with the higher exercise price is more than the price of the put with the lower exercise price; and
- if two calls (puts) have the same exercise price, the price of the call (put) with the nearer expiration is less than the price of the call (put) with the farther expiration.

The principles in the first two bullets are based on the standard trading principle of “buy low, sell high.” The ability to buy stock at a lower price is more valuable than the ability to buy stock at a higher price, and thus a call with a lower strike price has more value, and thus is more expensive, than a call with a higher strike price. Similarly, the ability to sell stock at a higher price is more valuable than the ability to sell stock at a lower price, and thus a put with a higher strike price has more value, and thus is more expensive, than a put with a lower strike price. The principle in the last bullet is based on the general concept that locking in a price further into the future involves more risk for the buyer and seller and thus is more valuable, making an option (call or

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<sup>25</sup> See current subparagraph (c)(3) and proposed subparagraph (c)(6). The proposed rule change amends this provision to indicate that the System rejects back the order rather than does not accept the order, as the proposed language more accurately reflects the System’s actions, which is to send a reject message to the submitting Trading Permit Holder. Additionally, the proposed rule change moves the language regarding partial executions in current subparagraph (c)(3) to proposed subparagraph (c)(3), with the change that the remainder of the order that cannot execute is rejected rather than routed for manual handling and other nonsubstantive changes to simplify the language.

put) with a farther expiration more expensive than an option with a nearer expiration. This is similar, for example, to interest rates for mortgages: in general, an interest rate on a 30-year mortgage is higher than the interest rate on a 15-year mortgage due to the risk of potential interest rate changes over the longer period of time to both the mortgagor and mortgagee.<sup>26</sup>

Based on these general rules, proposed subparagraph (c)(2) provides that the System will define a complex order as follows:

- a call butterfly spread for which the middle leg is to sell (buy) and twice the exercise price of that leg is greater than or equal to the sum of the exercise prices of the buy (sell) legs is a debit (credit) (because the “aggregate” exercise price of the sell (buy) leg is the same or higher than the “aggregate” exercise price of the buy (sell) legs and thus the sell (buy) leg is for the less (more) expensive option);
- a put butterfly spread for which the middle leg is to sell (buy) and twice the exercise price of that leg is less than or equal to the sum of the exercise prices of the buy (sell) legs is a debit (credit) (because the “aggregate” exercise price of the sell (buy) leg is the same or less than the “aggregate” exercise price of the buy (sell) leg and thus the sell (buy) leg is for the less (more) expensive option); and
- an order for which all pairs and loners are debits (credits) is a debit (credit).

The Exchange believes that these categories are consistent with Trading Permit Holders' expectations of pricing for these strategies.

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<sup>26</sup> The general principle described in the third bullet above does not necessarily apply to European-style index options, and thus the aspect of the proposed price check that is based on that general principle does not apply to those options, as described below. Additionally, this proposed price check will not apply to multi-class spreads, as these general principles do not necessarily apply to pricing of legs in different classes. See proposed subparagraphs (c)(2) and (c)(6).

A “pair” is a pair of legs in an order for which both legs are calls or both legs are puts, one leg is a buy and one leg is a sell, and both legs have the same expiration date but different exercise prices or, for all options except European-style index options, the same exercise price but different expiration dates. Based on the general option pricing rules described above, the System can determine whether a pair is a debit or credit. Being able to determine whether a pair of legs with the same exercise price but different expiration dates is a debit or credit is based on the general principle above that if two calls (puts) have the same exercise price, the price of the call (put) with the nearer expiration is less than the price of the call (put) with the farther expiration. As discussed above, this principle does not apply to European-style index options. Therefore, legs of complex orders for European-style index options may be paired only if they have the same expiration date but different exercise prices (and meet the other pairing criteria described above), but not if they have the same exercise price but different expiration dates – the System will skip this pairing step for European-style index options – and instead will be loners. A “loner” is any leg in an order that the System cannot pair with another leg in the order (including, as noted earlier in this paragraph, legs in orders for European-style index options that have the same exercise price but different expiration dates).<sup>27</sup> The System will first pair legs to the extent possible within each expiration date, pairing one leg with the leg that has the next highest exercise price. The System will then, for all options except European-style index options, pair legs to the extent possible with the same exercise price across expiration dates, pairing one leg with the leg that has the next nearest expiration date.

- A pair of calls is a credit (debit) if the exercise price of the buy (sell) is higher than the exercise price of the sell (buy) leg (if the pair has the same expiration date) or if

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<sup>27</sup> The System treats the stock leg of a stock-option order as a loner.

the expiration date of the sell (buy) leg is farther than the expiration date of the buy (sell) leg (if the pair has the same exercise price).

- A pair of puts is a credit (debit) if the exercise price of the sell (buy) leg is higher than the exercise price of the buy (sell) leg (if the pair has the same expiration date) or if the expiration date of the sell (buy) leg is farther than the expiration date of the buy (sell) leg (if the pair has the same exercise price).
- A loner to buy is a debit.
- A loner to sell is a credit.

If the System cannot determine whether a complex order is a debit or credit based on these categories, it will not apply this proposed check to the order.

Based on this proposed provision, a vertical spread to buy one call (put) and sell one call (put) will have one pair. A vertical spread to buy more than one call (put) and sell more than one call (put) will have the same number of pairs as calls (puts) in each leg of the spread. For example, a vertical spread to buy three Jan 10 calls and three Jan 20 calls contains three identical pairs that each consist of a buy Jan 10 call and a sell Jan 20 call. Because the pairs are identical, they will all be debits or credits, and thus the System can define vertical spreads as debits or credits. The System would pair the orders in a vertical spread in accordance with the proposed provision set forth above to determine whether it is a credit or debit.

Below are a number of examples demonstrating how the System determines whether a complex order is a debit or credit, and whether the system will reject the order pursuant to the proposed check (for purposes of the examples, assume the orders are not for index options with European-style exercises).

#### Example #1 – Limit Call Vertical Spread

A Trading Permit Holder enters a vertical spread to buy 10 Sept 30 XYZ calls and sell 10 Sept 20 XYZ calls at a net debit price of -\$10.00. The System defines this order as a credit, because the buy leg is for the call with the higher exercise price (and is thus the less expensive leg). The System rejects the order back to the Trading Permit Holder because it is a limit order for a credit strategy that contains a net debit price.

#### Example #2 – Limit Put Vertical Spread

A Trading Permit Holder submits a vertical spread to buy 20 Oct 30 XYZ puts and sell 20 Oct 20 XYZ puts at a net credit price of \$9.00. The System defines this order as a debit, because the buy leg is for the put with the higher exercise price (and is thus the more expensive leg). The System rejects the order back to the Trading Permit Holder because it is a limit order for a debit strategy that contains a net credit price.

#### Example #3 – Market Call Vertical Spread

A Trading Permit Holder enters a market vertical spread to buy 30 Nov 20 XYZ calls and sell 30 Nov 10 XYZ calls. The System defines this order as a credit, because the buy leg is for the call with the higher exercise price (and is thus the less expensive leg). The current bid in the market for this strategy is a net debit price of -\$20.00. The System rejects the order back to the Trading Permit Holder because it is a market order for a credit strategy that would otherwise be executed at a net debit price.

#### Example #4 – Market Put Vertical Spread

A Trading Permit Holder submits a market vertical spread to buy 10 Oct 20 XYZ puts and sell 10 Oct 10 XYZ put. The System defines this order as a debit, because the buy leg is for the put with the higher exercise price (and is thus the more expensive leg). The current offer in

the market for this strategy is a net credit price of \$8.00. The order executes at a net credit price of \$8.00, because that is a more favorable execution for the Trading Permit Holder, and thus the price check would not block execution of this order.

**Example #5 – Limit Call Butterfly Spread (Sell 2 Outside Legs, Buy Middle Leg)**

A Trading Permit Holder submits a butterfly spread to sell 5 Jul 20 XYZ calls, buy 10 Jul 30 XYZ calls and sell 5 Jul 40 XYZ calls at a net debit price of -\$15.00. The “aggregate” exercise price of the middle buy leg of 60 ( $2 \times 30$ ) is equal to the “aggregate” exercise price of the two outside sell legs of 60 ( $20 + 40$ ), and thus the System defines this order as a credit. The System rejects the order back to the Trading Permit Holder because it is a limit order for a credit strategy with a net debit price.<sup>28</sup>

**Example #6 – Limit Call Butterfly Spread (Buy 2 Outside Legs, Sell Middle Leg)**

A Trading Permit Holder submits a butterfly spread to buy 10 Feb 20 XYZ calls, sell 20 Feb 25 XYZ calls and buy 10 Feb 35 XYZ calls at a net credit price of \$20.00. The “aggregate” exercise price of the middle sell leg of 50 ( $2 \times 25$ ) is less than the “aggregate” exercise price of the two outside legs of 55 ( $20 + 35$ ), and thus the System cannot determine whether the order is to buy or sell. The System therefore does not block execution of this order based on this price check. If the exercise price of the middle leg was 30 (making the “aggregate” exercise price of that leg 60), the System would have defined this order as a debit and rejected the order back to the Trading Permit Holder, since it would be an order for a debit strategy with a net credit price.<sup>29</sup>

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<sup>28</sup> Similar to the result in Example #3, if this butterfly spread was a market order, the System would reject back to the Trading Permit Holder the order because it is a market order for a credit strategy that would otherwise be executed at a net debit price.

<sup>29</sup> Similar to the result in Example #4, if this alternative butterfly spread was a market order, the order would execute at a net credit price, because that is a more favorable execution

Example #7 – Limit Put Butterfly Spread (Sell 2 Outside Legs, Buy Middle Leg)

A Trading Permit Holder submits a butterfly spread to sell 20 Aug 10 XYZ puts, buy 40 Aug 20 XYZ puts and sell 20 Aug XYZ 30 puts at a net debit price of -\$20.00. The “aggregate” exercise price of the middle buy leg of 40 ( $2 \times 20$ ) is equal to the “aggregate” exercise price of the two outside sell legs of 40 ( $10 + 30$ ), and thus the System defines this order as a credit. The System rejects the order back to the Trading Permit Holder because it is a limit order for a credit strategy with a net debit price.<sup>30</sup>

Example #8 – Limit Put Butterfly Spread (Buy 2 Outside Legs, Sell Middle Leg)

A Trading Permit Holder submits a butterfly spread to buy 5 Apr 35 XYZ puts, sell 10 Apr 45 XYZ puts and buy 5 Apr 50 XYZ puts at a net credit price of \$25.00. The “aggregate” exercise price of the middle sell leg of 90 ( $2 \times 45$ ) is more than the “aggregate” exercise price of the two outside legs of 85 ( $35 + 50$ ), and thus the System cannot determine whether the order is a debit or credit. The System therefore does not block execution of this order based on this price check. If the exercise price of the middle leg was 40 (making the “aggregate” exercise price of that leg 80), the System would have defined this order as a debit and rejected the order back to the Trading Permit Holder, since it would be a limit order for a debit strategy with a net credit price.<sup>31</sup>

Example #9 – 3-Legged Complex Order (same expiration, different strikes)

A Trading Permit Holder submits a complex order to buy 1 Jan 10 XYZ calls, sell 2 Jan 20 XYZ calls and buy 1 Jan 15 XYZ put at a net debit price of -\$8.00. The System pairs one of

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for the Trading Permit Holder, and thus the price check would not block execution of the market order.

<sup>30</sup> See supra note 26.

<sup>31</sup> See supra note 27.

the sell Jan 20 calls with the buy Jan 10 call and defines it as a debit, because the buy leg is for the lower exercise price (and thus is more expensive). There are two loners remaining: the other sell Jan 20 call, which the System defines as a credit, and the buy Jan 15 put, which the System defines as a debit. Because not all pairs and loners are debits or credits (the pair and one loner are debits and the other loner is a credit), the System cannot determine whether the order is a debit or credit. The System therefore does not block execution of this order based on this price check.

Example #10 – 4-Legged Complex Order (same strike, different expirations)

A Trading Permit Holder submits a complex order to buy 1 Feb 15 XYZ call, to sell 1 Jan 15 XYZ call, to buy 1 Jun 15 XYZ put, and to sell 1 Apr 15 XYZ put at a net credit price of \$12.00. The System pairs the two calls, which the System defines a debit (because the buy leg is for the call with the farther expiration date and is thus more expensive), and the two puts, which the System defines as a debit (because the buy leg is for the call with the farther expiration date and is thus more expensive). There are no loners. Because all pairs are debits, the System defines this order as a debit. The System rejects the order back to the Trading Permit Holder, since it is a limit order for a debit strategy with a net credit price.

Example #11 – 7-Legged Complex Order<sup>32</sup> (different strikes and expirations)

A Trading Permit Holder submits a complex order with the following legs:

- sell 1 Apr 10 XYZ put;
- buy 1 Mar 20 XYZ call;
- buy 1 Mar 25 XYZ call;

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<sup>32</sup> Currently, the System only accepts complex order with two, three or four legs. This example is included to demonstrate the pairing of orders. To the extent the Exchange determines to accept complex orders with more than four legs, the pairing in this example would apply.

- buy 2 Mar 30 XYZ put;
- sell 2 Mar 35 XYZ put;
- buy 2 Jun 20 XYZ calls; and
- sell 2 Jul 20 XYZ calls.

The System pairs (i) the buy 1 Mar 20 call with one of the sell Jul 20 calls and (ii) one of the buy Jun 20 calls with the other sell Jul 20 calls (there are no call pairs with the same expiration date but different exercise prices). The System defines both of these call pairs as credits because the buy leg of each pair has the nearer expiration date and is thus less expensive. There are two loner calls remaining: the buy Mar 25 call and the other buy Jun 20 call, both of which the System defines as debits. The System then pairs (i) one of the buy Mar 30 puts with one of the sell Mar 35 puts and (ii) the other buy Mar 30 put with the other sell Mar 35 put. The System defines both of these put pairs as credits because the buy leg of each pair is for the lower exercise price (and is thus less expensive). The sell Apr 10 put is the remaining loner put, which the System defines as a credit. Because not all pairs and loners are debits or credits (four pairs and one loner are credits but two other loners are debits), the System cannot define the order as a debit or credit. The System therefore does not block execution of this order based on this price check.

To the extent a Trading Permit Holder submits a pair of orders to AIM, SAM or as a QCC orders, this proposed check will apply to both orders in the pair. If the System rejects either order in the pair pursuant to the applicable check, then the System will also cancel the paired order. As discussed above, 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 price checks to be consistent with the intent of the submitted Trading Permit Holder.

Notwithstanding the foregoing, with respect to an AIM order that instructs the System to process the agency order as an unpaired order if an AIM auction cannot be initiated (for example, because there are not three Market-Makers quoting in the series as required by Rule 6.74A(a)(4) or if the contra-side order does not stop the agency order at the price required by Rule 6.74A(a)(2) or (3)), if the System rejects the agency order pursuant to the applicable check, then the System will also reject the contra-side order. However, if the System rejects the contra-side order pursuant to the applicable check, the System will accept the agency order (assuming it satisfies the applicable check).<sup>33</sup> The purpose of the contingency to treat the agency order as an unpaired order provides the opportunity for that order (which is a customer of the submitting Trading Permit Holder) to execute despite not entering an AIM auction pursuant to which the order may execute against a facilitation or solicitation order of the Trading Permit Holder. The Exchange believes the proposed rule change is consistent with that contingency.

#### Maximum Value Acceptable Price Range

Proposed Rule 6.53C, Interpretation and Policy .08(g) adds an additional price check for vertical, true butterfly and box spreads.<sup>34</sup> These strategies have quantifiable maximum possible values, and the Exchange proposes to subject these strategies to a price check that would block

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<sup>33</sup> See proposed subparagraph (c)(5).

<sup>34</sup> See supra note 19 for definitions of vertical and true butterfly spreads. The proposed rule change also adds a definition for box spreads and proposes to use these terms for the various price checks in Interpretation and Policy .08, as applicable, it is also the common trading term used by market participants in the industry that refers to this strategy. See, e.g., CBOE Options Dictionary, available at <http://www.cboe.com/LearnCenter/Glossary.aspx>; and NASDAQ Options Trading Glossary, available at [http://www.stocks-options-trading.com/glossary\\_options.asp](http://www.stocks-options-trading.com/glossary_options.asp). A “box spread” is a four-legged complex order with one leg to buy calls and one leg to sell puts with one strike price, and one leg to sell calls and one leg to buy puts with another strike price, all of which have the same expiration date and are for the same number of contracts.

executions at prices that exceed their maximum possible values by more than a reasonable amount. While the Exchange believes Trading Permit Holders are generally willing to accept executions at prices that exceed the maximum possible value of the applicable spread to a certain extent, executions that exceed the maximum possible value by too much may be erroneous. The Exchange believes blocking these potentially erroneous executions are consistent with expectations of Trading Permit Holders with respect to these strategies. This check is intended to be a second layer of protection to prevent executions of orders at potentially erroneous prices that were not on face erroneous (and thus not rejected pursuant to the proposed debit/credit check described above). For example, a limit order for a debit strategy at a net debit price will not be rejected pursuant to the proposed debit/credit check above; however, the net debit price may be too far above the maximum possible value of the order that it is potentially erroneous.

Specifically, proposed paragraph (g) states that if an order is a vertical, true butterfly or box spread, the System will not automatically execute a limit order for a net credit price or net debit price, or a market order for a debit strategy if it would execute at a net debit price, that is outside of an acceptable price range.<sup>35</sup> Pursuant to proposed subparagraph (g)(1), the System determines the acceptable price range as follows:

- The maximum possible value of a vertical spread is the difference between the exercise prices of the two legs.
- The maximum possible value of a true butterfly spread is the difference between the exercise prices of the middle leg and the legs on either side.

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<sup>35</sup> This proposed price check will also apply to auction responses. See proposed subparagraph (g)(3). As discussed above, the Exchange believes these responses can cause erroneous executions in the same manner as bids and orders and thus should be subject to this proposed price protection to further help prevent potentially erroneous executions. See supra note 5.

- The maximum possible value of a box spread is the difference between the exercise prices of each pair of legs.
- The minimum possible value of the spread is zero.
- The System will calculate the amount that is a percentage of the maximum possible value of the spread (the “percentage amount”), which percentage the Exchange will determine and announce to Trading Permit Holders by Regulatory Circular.
- The acceptable price range is zero to the maximum possible value of the spread plus:
  - the percentage amount, if that amount is not outside a pre-set range (the Exchange will determine the pre-set range minimum and maximum amounts and announce them to Trading Permit Holders by Regulatory Circular);
  - the pre-set minimum, if the percentage amount is less than the pre-set minimum; or
  - the pre-set maximum, if the percentage amount is greater than the pre-set maximum.

The System will reject back to the Trading Permit Holder any limit order, and cancel any market order (or remaining size after partial execution of the order), that does not satisfy this proposed check.<sup>36</sup>

#### Example #1 – Vertical Spread

Assume the pre-set range is 0.05 to 0.50 and the percentage is 5%. A Trading Permit Holder submits a complex order to buy 1 Aug 25 XYZ call and sell 1 Aug 30 XYZ call, which is a market order for a debit strategy. The maximum possible value of the vertical spread is \$5 (30

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<sup>36</sup> See proposed subparagraph (g)(2).

– 25), and the percentage amount is 0.25 (5% of \$5), which is within the pre-set range. Therefore, the acceptable price range is 0 to 5.25. The best net offer price is \$6.60. The System rejects the order back to the Trading Permit Holder, because the order would otherwise execute at a price that is outside of the acceptable price range. If the market changed so that the best net offer price is \$5.20 and the Trading Permit Holder resubmitted the order, the System would not block execution of the order, as the execution price would be within the acceptable price range.

#### Example #2 – Butterfly Spread

Assume the pre-set range is 0.30 to 0.90 and the percentage is 2%. A Trading Permit Holder submits a complex order to buy 1 Nov 10 XYZ put, sell 2 Nov 20 XYZ puts and buy 1 Nov 30 XYZ, which is an order for a debit strategy with a net debit price of \$7.00.<sup>37</sup> The maximum possible value of true butterfly spread is \$10 (20 – 10, 30 – 20) and the percentage amount is 0.2 (2% of \$10), which is less than the pre-set range minimum amount of 0.30. Therefore, the acceptable price range is 0 to 5.30. The System rejects the order back to the Trading Permit Holder, because the net debit price of \$7.00 is outside of the acceptable price range. If the Trading Permit Holder resubmitted the order with a net debit price of \$5.00, the System would not block execution of the order, as the limit price is within the acceptable price range.

#### Example #3 – Box Spread

Assume the pre-set range is 0.20 to 0.60 and the percentage is 3%. A Trading Permit Holder submits a complex order to buy 1 Mar 45 XYZ call, sell 1 Mar 45 XYZ put, sell 1 Mar 20 XYZ call and buy 1 Mar 20 XYZ put, which is an order for a credit strategy with a net credit

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<sup>37</sup> Generally, a net debit price is referred to as having a negative price (e.g., -\$7.00). For purposes of this proposed check, the absolute value of the net debit price (e.g., \$7.00) is used.

price of \$28.00. The maximum possible value of the box spread is \$25 ( $45 - 20$ ), and the percentage amount is 0.75 (3% of \$25), which is more than the pre-set range maximum amount of 0.60. Therefore, the acceptable price range is 0 to 25.60. The System rejects the order back to the Trading Permit Holder, because the net credit price of \$28.00 is outside of the acceptable price range. If the Trading Permit Holder resubmitted the order with a net credit price of \$24.00, the System would not block execution of the order, as the limit price is within the acceptable price range.

To the extent a Trading Permit Holder submits a pair of orders to AIM, SAM or as a QCC order, this proposed check will apply to both orders in the pair. If the System rejects either order in the pair pursuant to the applicable check, then the System will also cancel the paired order. As discussed above, 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 price checks to be consistent with the intent of the submitted Trading Permit Holder. Notwithstanding the foregoing, with respect to an AIM order that instructs the System to process the agency order as an unpaired order if an AIM auction cannot be initiated (for example, because there are not three Market-Makers quoting in the series as required by Rule 6.74A(a)(4) or if the contra-side order does not stop the agency order at the price required by Rule 6.74A(a)(2) or (3)), if the System rejects the agency order pursuant to the applicable check, then the System will also reject the contra-side order. However, if the System rejects the contra-side order pursuant to the applicable check, the System will accept the agency order (assuming it satisfies the applicable check).<sup>38</sup> The purpose of the contingency to treat the agency order as an unpaired order provides

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<sup>38</sup> See proposed subparagraph (g)(4).

the opportunity for that order (which is a customer of the submitting Trading Permit Holder) to execute despite not entering an AIM auction pursuant to which the order may execute against a facilitation or solicitation order of the Trading Permit Holder. The Exchange believes the proposed rule change is consistent with that contingency.

## 2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the “Act”) and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.<sup>39</sup> Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)<sup>40</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>41</sup> requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the Exchange believes the proposed price protection mechanisms will protect investors and the public interest and maintain fair and orderly markets by mitigating potential risks associated with market participants entering orders at clearly unintended prices and orders trading at prices that are extreme and potentially erroneous, which may likely have

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<sup>39</sup> 15 U.S.C. 78f(b).

<sup>40</sup> 15 U.S.C. 78f(b)(5).

<sup>41</sup> Id.

resulted from human or operational error. The proposed put strike price and call underlying value checks of the reasonability of quotes and orders will assist in the maintenance of a fair and orderly market and protect investors by rejecting quotes and orders that exceed the corresponding benchmark (the strike price for puts and the value of the underlying for calls). The Exchange believes the additional risk control feature to reject a quote (both sides if entered as a two-sided quote) and cancel a Market-Maker's resting quote (on both sides) if the System rejects an updated/incoming quote in that series pursuant to this proposed price check is appropriate, because Market-Makers generally submit two-sided quotes, as their trading strategies and risk profiles are based in part on the spreads of their quotes, and rejecting or cancelling, as applicable, quotes on both sides of the series is consistent with this practice. The Exchange believes this operates as an additional safeguard that causes the Market-Maker to re-evaluate its quotes in the series before attempting to update its quotes again. Additionally, when a Market-Maker submits a new quote, that Market-Maker is implicitly instructing the Exchange to cancel any resting quote in the same series. Thus, even if the new quote is rejected as a result of this proposed check, the Market-Maker's implicit instruction to cancel the resting quote remains valid nonetheless. The Exchange believes it is appropriate to apply this check to auction responses, as these responses can cause erroneous executions in the same manner as bids and orders and thus should be subject to this proposed price protection to further help prevent potentially erroneous executions. 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.

In addition, the Exchange believes it is appropriate to not apply the call price check if that value is unavailable, because the proposed call price check references the last value of the

underlying, or to an adjusted series, because trading of options in adjusted series may not accurately reflect the value of the underlying (as the new standard series would). Without the current value of the underlying or with a potentially inaccurate underlying value, if the System continued to attempt to perform the check, there is risk that the System may reject appropriately priced orders, quotes or responses, which could negatively impact market participants.

Similarly, the Exchange believes it is appropriate to have the flexibility to not apply the call price check during Extended Trading Hours, as there may be no underlying value or the underlying value may not be appropriate to use due to decreased liquidity and trading during those hours.

The Exchange believes it is appropriate to have the flexibility to disable the put or call check in response to a market event (for example, if dissemination of data was delayed and resulting in unreliable underlying values) to maintain a fair and orderly market. This will promote just and equitable principles of trade and ultimately protect investors.

The Exchange believes the quote inverting NBBO check will help mitigate the risks associated with the entry of quotes that are priced a specified number of ticks through the prevailing contra-side market, which the Exchange believes is evidence of an error with the quotes. By rejecting these quotes, the Exchange believes it is promoting just and equitable principles of trade by preventing potential price dislocation that could result from erroneous Market-Maker quotes sweeping through multiple price points resulting in executions that cross the NBBO. Specifically, the Exchange believes rejecting Market-Maker quotes that cross the NBBO (or the BBO when the NBBO is not available) by more than an acceptable tick distance will remove impediments to and perfect the mechanism of a free and open market and protect investors and the public interest because it would enable the Exchange to avoid the submission of erroneous quotes that otherwise may cause price dislocation before such quotes could cause

harm to the market. Cancellation of any remaining size of a quote that would lock or cross the best disseminated price by an away exchange, and rejection of a quote that locks or crosses the NBBO if CBOE is not at the NBBO prevents trade-throughs and the display of locked or crossed market, consistent with the options linkage plan.

The Exchange believes that using a specified tick distance is appropriate because that is the parameter used for the corresponding limit order reasonability check and because it provides Market-Makers a precise price protection. The Exchange believes it is reasonable to be able to set the acceptable tick distance to be tighter for the quote price reasonability check to provide additional protection to Market-Makers given their unique role in the market, which could encourage Market-Makers to quote tighter and deeper markets and thus enhance liquidity. The Exchange believes it is appropriate to execute quotes that are no more than the specified number of ticks away from the NBBO, because while the Exchange believes Market-Makers are generally willing to accept executions of their quotes that exceed the NBBO to a certain extent, it also believes executions of quotes that exceed the NBBO by too much may be erroneous. The Exchange believes blocking these potentially erroneous executions is consistent with expectations of Market-Makers and helps them manage their risk, and thus benefits investors and promotes just and equitable principles of trade.

Similar to the put strike price and call underlying value check, the Exchange believes the additional risk control feature to reject a quote (both sides if entered as a two-sided quote) and cancel a Market-Maker's resting quote (on both sides) if the System rejects an updated/incoming quote in that series pursuant to this proposed price check is appropriate, because Market-Makers generally submit two-sided quotes, as their trading strategies and risk profiles are based in part on the spreads of their quotes, and rejecting or cancelling, as applicable, quotes on both sides of

the series is consistent with this practice. The Exchange believes this operates as an additional safeguard that causes the Market-Maker to re-evaluate its quotes in the series before attempting to update its quotes again. Additionally, when a Market-Maker submits a new quote, that Market-Maker is implicitly instructing the Exchange to cancel any resting quote in the same series. Thus, even if the new quote is rejected as a result of this proposed check, the Market-Maker's implicit instruction to cancel the resting quote remains valid nonetheless.

The Exchange believes it is appropriate to have the flexibility to determine not to apply this proposed check to quotes entered during the pre-opening, a trading rotation or a trading halt (and to apply this check to a quote entered during those times after trading opens or resumes, as applicable, and prior to their entry into the Book) so that the check does not impact the determination of the opening price or the entry of quotes during times when pricing may be volatile and inaccurate. Additionally, this check will not apply if a senior official at the Exchange's Help Desk determines it should not apply in the interest of maintaining a fair and orderly market. Similarly, the Exchange believes it is appropriate to have this flexibility to determine times when the check should not apply to respond to market events, such as times of extreme price volatility. This assists the Exchange's maintenance of a fair and orderly market, which ultimately removes impediments to and perfects the mechanism of a free and open market and protects investors and the public interest.

The proposed debit and credit price reasonability checks expand the applicability of the current check to additional complex orders for which the Exchange can determine whether the order is a debit or credit. By expanding the orders to which these checks apply, the Exchange can further assist with the maintenance of a fair and orderly market by mitigating the potential risks associated with additional complex orders trading at prices that are inconsistent with their

strategies (which may result in executions at prices that are extreme and potentially erroneous), which ultimately protects investors. The Exchange believes the methodology the System will use to determine whether an order is a debit or credit is consistent with general option and volatility pricing principles, which the Exchange understands are used by market participants in their option pricing models and promote just and equitable principles of trade. Because one of these principles does not necessarily apply to European-style index options, the Exchange believes it is reasonable to not apply the aspect of this proposed price check based on that principle to those options classes. Additionally, the Exchange believes it is reasonable to not apply this proposed check to multi-class spreads, as these rules do not apply to pricing of legs in different classes. In addition, the Exchange believes it is appropriate to apply this check to auction responses, as these responses can cause erroneous executions in the same manner as bids and orders and thus should be subject to this proposed price protection to further help prevent potentially erroneous executions. 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 pairs of orders. The nonsubstantive changes to this provision and the addition of defined strategies clarify the applicability of the price check using terms generally used throughout the industry, which will benefit investors.

The proposed maximum value acceptable price range will further assist with the maintenance of a fair and orderly market by helping to mitigate the potential risks associated with orders that have strategies with quantifiable maximum possible values trading at prices that are extreme or “too far away” from that value and thus that are potentially erroneous. While the Exchange believes Trading Permit Holders are generally willing to accept executions at prices

that exceed the maximum possible value of the applicable spread to a certain extent, executions that exceed the maximum possible value by too much may be erroneous. The Exchange believes the methodology to determine the acceptable price range is reasonable because using a percentage amount provides Trading Permit Holders with precise protection, while the pre-set range amounts ensure that, with respect to strategies with larger or smaller maximum values, the acceptable price range cannot be too wide or narrow to the point that the price check would become ineffective. The Exchange believes blocking these potentially erroneous executions are consistent with expectations of Trading Permit Holders with respect to these strategies and will thus protect investors. As discussed above, the Exchange believes it is appropriate to apply this check to auction responses, as these responses can cause erroneous executions in the same manner as bids and orders and thus should be subject to this proposed price protection to further help prevent potentially erroneous executions. 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 pairs of orders.

Three of the proposed price checks are substantially similar to those included in other options exchanges' rules:

- the put strike price and call underlying value checks are substantially similar to NYSE Arca, Inc. ("NYSE Arca") Rule 6.61(a)(2) and (3) (note that CBOE's proposed checks apply to orders and quotes (as well as auction responses) while NYSE Arca's checks apply only to quotes);
- the quote price reasonability check is substantially similar to NYSE Arca Rule 6.61(a)(1) (note that NYSE Arca uses percentage and dollar thresholds, which is

consistent with the parameters used in its limit order price check, while the proposed rule uses tick distance, which is consistent with the parameters used in CBOE's limit order price check); and

- the maximum value acceptable price range is substantially similar to NASDAQ OMX PHLX, Inc. (“PHLX”) Rule 1080, Interpretation and Policy .07(g) (note that the PHLX rule applies to vertical and time spreads, while the proposed rule applies to vertical, true butterfly and box spreads).

The fourth price check is an expansion of the applicability of a price check already included in CBOE's rules.

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 for orders and quotes of all Trading Permit Holders submitted to CBOE to help further prevent potentially erroneous executions, which benefits all market participants. The price checks apply to all incoming orders and quotes of all Trading Permit Holders in the same manner. The quote price reasonability check applies only to Market-Maker quotes, because the Rules currently have a similar price check that applies to orders. Additionally, the Exchange believes this type of protection for Market-Makers is 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 provide. The Exchange believes the proposed rule change would provide market participants with additional protection from anomalous or erroneous executions.

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

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

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

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

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

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change, as modified by Amendment No. 1, 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 [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-CBOE-2015-107 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-2015-107. 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 (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; 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-2015-107 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>42</sup>

Robert W. Errett,  
Deputy Secretary

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<sup>42</sup> 17 CFR 200.30-3(a)(12).

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