

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-83163; File No. SR-BOX-2018-13)

May 3, 2018

Self-Regulatory Organizations; BOX Options Exchange LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Adopt Price Protections for Complex Orders

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on April 25, 2018, BOX Options Exchange LLC (the “Exchange”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange proposes to adopt price protections for Complex Orders. The text of the proposed rule change is available from the principal office of the Exchange, at the Commission’s Public Reference Room and also on the Exchange’s Internet website at <http://boxoptions.com>.

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 self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

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

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

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

1. Purpose

The Exchange is proposing to adopt price protections for Complex Orders executed on BOX. The Exchange notes that the proposed change is similar to the rules of another exchange.<sup>3</sup> The Exchange is proposing debit/credit checks and price validation for eligible Complex Orders.<sup>4</sup> The proposed Complex Order price check parameters will apply to all Complex Orders, including auctions (COPIP, Facilitation, and Solicitation) and Complex Qualified Open Outcry Orders (“Complex QOO Orders”).<sup>5</sup>

**Debit/Credit Checks**

The Exchange is proposing a debit/credit check that will prevent the execution of certain Complex Orders at erroneous prices.<sup>6</sup> Specifically, the system will reject a Complex Limit Order for a credit strategy with a net debit price or a Complex Limit Order for a debit strategy with a net credit price.

The system determines whether an order is a debit or credit based on general options

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<sup>3</sup> See Chicago Board Options Exchange, Incorporated (“Cboe”) Interpretations and Policies .08(c) and (g) to Rule 6.53C. The Exchange notes that the proposed rules determine whether a Complex Order is debit or credit by using a slightly different process than that employed by Cboe. Specifically, CBOE will group the legs of a Complex Order into pairs and compare multiple pairs to determine whether the Complex Order is a credit or debit while the Exchange is proposing to create groups (which may include more than two legs) based on expiration date. However, the ultimate determination of whether a Complex Order is a debit or credit is the same under the different processes. Therefore, the Exchange believes the proposed rule change is substantially similar to the rules of Cboe. The proposed Maximum Price protection is based on Cboe Rule 6.53C.08(g).

<sup>4</sup> See proposed IM-7240-1.

<sup>5</sup> Under Exchange rules, a Complex QOO Order is not executed until it is processed by the system. See Rule 7600(a). The system applies the proposed price check parameters upon receipt of a Complex QOO Order. Therefore, the proposed protections apply to Complex QOO Orders in the same way as any other Complex Order received by the system.

<sup>6</sup> See proposed IM-7240-1(a).

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 near expiration is less than the price of the call (put) with the farther expiration.

In other words, a call (put) with a lower (higher) exercise price is more expensive than a call (put) with a higher (lower) exercise price, because the ability to buy stock at a lower price is more valuable than the ability to buy stock at a higher price, and the ability to sell stock at a higher price is more valuable than the ability to sell stock at a lower price. A call (put) with a farther expiration is more expensive than the price of a call (put) with a nearer expiration, because locking in a price further in the future involves more risk for the buyer and seller and thus is more valuable, making an option (call or put) with a farther expiration more expensive than an option with a nearer expiration.

Pursuant to the aforementioned principles, the Exchange will reject an eligible Complex Order that is a Limit Complex Order for a credit strategy with a net debit price, or a Limit Complex Order for a debit strategy with a net credit price. The system will identify the strategy as a debit or credit based on the potential profit or loss of the Complex Order. The system accomplishes this by first grouping the legs of the Complex Order by expiration date. The system then calculates the potential profit or loss of each group for a range of price levels of the underlying security. The specific price levels are equal to the strike price of each leg in the

group.

If, at all price levels, the profit or loss for the group is break-even or profit, then the group is a debit.<sup>7</sup> If, at all price levels, the profit or loss for the group is break-even or loss, then the group is a credit.<sup>8</sup> If all the groups of a Complex Order are a debit(credit), then the Complex Order is a debit(credit).<sup>9</sup>

For example, assume a Complex Order to buy 50 Jan \$1 XYZ calls, sell 50 Jan \$2 XYZ calls, sell 50 Jan \$3 XYZ calls, and buy 50 Jan \$4 XYZ calls is entered at a net credit price (i.e., the net sale proceeds from the Jan \$2 and \$3 calls are larger than the net purchase cost from the Jan \$1 and \$4 calls). Since all legs have the same expiration, they will be grouped together and the potential profit or loss will be calculated for the group. If, at all price levels, the profit or loss for the group is break-even or profit, then the Complex Order is a debit. If, at all price levels, the profit or loss for the group is break-even or loss, then the Complex Order is a credit. Upon evaluating the group, the system will determine that the Complex Order appears to be erroneously priced as a net credit; it should instead be a net debit because the profit or loss for the group is break-even or profit for each price level. Specifically, as shown in the table below, the net purchase cost of the Jan \$1 and \$4 XYZ calls is larger than or equal to the net sale proceeds from the Jan \$2 and \$3 calls at each strike price level.

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<sup>7</sup> See proposed IM-7240-1(a)(1)(i). The reason that the group is a debit is because an investor would expect to pay for a strategy that produced a profit.

<sup>8</sup> See proposed IM-7240-1(a)(1)(ii). The reason that the group is a credit is because an investor would expect to be compensated for a strategy that produced a loss.

<sup>9</sup> See proposed IM-7240-1(a)(2).

<b>Profit or Loss</b>				
Strike Price Level (\$)	1	2	3	4
Buy \$1 Call	0	1	2	3
Sell \$2 Call	0	0	-1	-2
Sell \$3 Call	0	0	0	-1
Buy \$4 Call	0	0	0	0
Total Profit & Loss	0	1	1	0

If not all groups of a Complex Order are a debit or credit, the system, for American-style options only, will determine if the Complex Order is a debit or a credit by comparing legs across expiration dates.<sup>10</sup> The system will first convert all legs to the same expiration and then compare the profit or loss, as provided in proposed IM-7240-1(a)(i), while taking into account the conversion of the expiration date of the leg(s). The system will evaluate the converted leg(s) based on the fact that an option with a farther expiration has a higher value when compared to an option with the same exercise price but a closer expiration. For example, if a sell leg is converted to a farther expiration and the strategy still yields a profit when the system evaluates the potential profit or loss of the strategy, the strategy is a debit because even by increasing the value of a sell leg the strategy still yields a profit.

For example, assume a Complex Order to buy 50 Feb \$1 XYZ calls, sell 50 Jan \$2 XYZ calls, sell 50 Jan \$3 XYZ calls, and buy 50 Feb \$4 XYZ calls, is entered at a net credit price (i.e., the net sale proceeds from the Jan \$2 and \$3 calls is larger than the net purchase cost from the Feb \$1 and \$4 calls). Since not all legs have the same expiration, they will be grouped by expiration date first. The Feb \$1 and \$4 calls would be one group and the Jan \$2 and \$3 calls would be the other group. This would yield one group as a debit (Feb \$1 and \$4 calls) and one as a credit (Jan \$2 and \$3 calls). Therefore, the system would not be able to

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<sup>10</sup> See proposed IM-7240-1(a)(3).

determine if the Complex Order is a debit or credit based on the groups since not all of the groups are a debit or credit. Instead, the system will determine if the Complex Order is a debit or credit by comparing all the legs of the Complex Order together. The first step is to convert the Jan \$2 and \$3 calls to Feb \$2 and \$3 calls so all legs have the same expiration and therefore the potential profit or loss can be calculated pursuant to proposed IM-7240-1(a)(1). Upon evaluating all legs collectively, the system will determine that the Complex Order appears to be erroneously priced as a net credit; it should instead be a net debit because the profit or loss for all the legs is break-even or profit for each price level. Specifically, as shown in the table below, the net purchase cost of the Feb \$1 and \$4 XYZ calls are larger than or equal to the net sale proceeds from the converted Feb \$2 and \$3 calls at each underlying price level. After calculating the profit or loss, the system will determine if the outcome would change based on the converted leg (i.e., the Jan \$2 and \$3 calls being converted to Feb \$2 and \$3 calls). The system will determine that the outcome is correct because the conversion of the Jan \$2 and \$3 calls to more expensive Feb \$2 and \$3 calls still yielded a break-even or profit for each price level even though the converted Feb \$2 and \$3 calls are more expensive than the actual Jan \$2 and \$3 calls. Therefore, since selling more expensive call options (i.e., Feb \$2 and \$3 calls) still yielded a break-even or profit at all price levels, it can easily be deduced that selling the actual, less expensive, Jan \$2 and \$3 calls would yield the same result.

<b><u>Profit or Loss</u></b>				
Strike Price Level (\$)	1	2	3	4
Buy \$1 Call	0	1	2	3
Sell \$2 Call	0	0	-1	-2
Sell \$3 Call	0	0	0	-1
Buy \$4 Call	0	0	0	0
Total Profit & Loss	0	1	1	0

If the system cannot identify whether the Complex Order is a credit or debit pursuant to proposed IM-7240-1(a)(2) or (3), the system will not apply the check in proposed IM-7240-1(a).<sup>11</sup>

### **Maximum Price**

After a Complex Order passes the debit/credit check, the system will then calculate a maximum price for certain Complex Orders.<sup>12</sup> Specifically, the system will calculate a maximum price for true butterfly spreads, vertical spreads, and box spreads. After calculating the maximum price, the system will reject a Complex Limit Order that is a true butterfly spread, vertical spread, or a box spread if the absolute value of the Complex Order's limit price is greater than the maximum price. For a Complex Market Order that is a true butterfly spread, vertical spread, or a box spread, the system will reject the Complex Market Order if the absolute value of the execution price is greater than the maximum price. As described in greater detail below, the maximum price value is calculated by adding a price buffer to the absolute value of a true butterfly spread, vertical spread, or box spread.

The price buffer is calculated by taking a specified percentage of the absolute value of the strategy.<sup>13</sup> The system will provide a minimum and maximum value for the price buffer. If the price buffer is below the minimum value, then the minimum is used by the system when calculating the maximum price value. If the price buffer is above the maximum value, then the maximum is used by the system when calculating the maximum price value. The specified percentage, minimum value, and maximum value shall be the same for all classes. Unless determined otherwise by the Exchange and announced to Participants via Circular, the specified

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<sup>11</sup> See proposed IM-7240-1(a)(4).

<sup>12</sup> See proposed IM-7240-1(b).

<sup>13</sup> See proposed IM-7240-1(b)(1).

percentage is 5%, the minimum value is \$0.10, and the maximum value is \$1.00.

An absolute value will be calculated for those strategies to which the Maximum Price protection applies. The absolute value for a vertical spread is the absolute difference between the exercise prices of the two legs.<sup>14</sup> The absolute value for a true butterfly spread is the absolute difference between the middle leg exercise price and the exercise price of the leg on either side.<sup>15</sup> The absolute value for a box spread is the absolute difference between the exercise prices of each pair of legs.<sup>16</sup>

#### Vertical Spread Example

Assume a Complex Limit Order to buy 10 Dec \$30 XYZ puts and sell 10 Dec \$20 XYZ puts at \$10.60. The absolute value for the vertical spread is \$10 (the absolute value of 30-20). The specified percentage is set to 5%, the minimum value is set to \$0.10, and the maximum value is set to \$1.00. The price buffer for the vertical spread would be \$0.50 ( $\$10.00 * .05$ ). Therefore the system will reject any Complex Limit Order because the price (\$10.60) is greater than the Maximum Price of \$10.50 for the strategy.

#### True Butterfly Spread Example

Assume a Complex Limit Order to buy 10 Dec \$10 XYZ calls, sell 20 Dec \$40 XYZ calls, and buy 10 Dec \$70 XYZ calls at \$30.50. The absolute value for the butterfly spread is \$30 (the absolute value of 10-40 or 40-70). The specified percentage is set to 5%, the minimum value is set to \$0.10, and the maximum value is set to \$1.00. The price buffer for the butterfly spread would be \$1.50 ( $\$30.00 * .05$ ); however, since that amount is above the maximum value, the system would use the maximum value (\$1.00) as the price buffer instead. Therefore the system

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<sup>14</sup> See proposed IM-7240-1(b)(2).

<sup>15</sup> See proposed IM-7240-1(b)(3).

<sup>16</sup> See proposed IM-7240-1(b)(4).

would accept the Complex Limit Order because the price (\$30.50) is less than the Maximum Price of \$31.00 for the strategy.

Box Spread Example

Assume a Complex Limit Order to buy 10 Dec \$4 XYZ calls, sell 10 Dec \$5 XYZ calls, buy 10 Dec \$5 XYZ puts, and sell 10 Dec \$4 puts at \$1.09. The absolute value for the box spread is \$1.00 (the absolute value of 5-4). The specified percentage is set to 5%, the minimum value is set to \$0.10, and the maximum value is set to \$1.00. The price buffer for the box spread would be \$0.05 ( $\$1.00 \times .05$ ); however, since that amount is below the minimum value, the system would use the minimum value (\$0.10) as the price buffer instead. Therefore the system would accept the Complex Limit Order because the price (\$1.09) is less than the Maximum Price of \$1.10 for the strategy.

The Exchange will provide notice of the exact implementation date of the proposed protections, via Circular, at least two weeks prior to implementing the proposed change. The Exchange anticipates implementing the proposed protections during Q2 of 2018.

2. Statutory Basis

The Exchange believes that the proposal is consistent with the requirements of Section 6(b) of the Securities Exchange Act of 1934 (the “Act”),<sup>17</sup> in general, and Section 6(b)(5) of the Act,<sup>18</sup> in particular, in that it is 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 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.

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<sup>17</sup> 15 U.S.C. 78f(b).

<sup>18</sup> 15 U.S.C. 78f(b)(5).

In particular, the proposed rule change to implement a debit/credit check for Complex Orders for which the Exchange can determine whether a Complex Order is a debit or credit is consistent with the Act. With the use of debit/credit checks, the Exchange can further assist with the maintenance of a fair and orderly market by mitigating the potential risks associated with 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. This proposed implementation of the debit/credit check promotes just and equitable principles of trade, as it is based on the same general option and volatility pricing principles which the Exchange understands are used by market participants in their option pricing models.

Additionally, the Exchange also believes that calculating a maximum price for true butterfly spreads, vertical spreads, and box spreads will assist with the maintenance of fair and orderly markets by helping to mitigate the potential risks associated with Complex Orders trading at extreme and potentially erroneous prices that are inconsistent with particular Complex Order strategies. Further, the Exchange notes that the maximum price is designed to mitigate the potential risks of executions at prices that are not within an acceptable price range, as a means to help mitigate the potential risks associated with Complex Orders trading at prices that are inconsistent with their strategies, in addition to the debit/credit check. As such, the proposed rule change is designed to protect investors and the public interest.

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

The Exchange does not believe that the proposed Complex Order protections will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. In this regard and as indicated above, the Exchange notes that the rule change is being proposed

as a competitive response to the rules of another exchange.<sup>19</sup> Additionally, the Exchange believes the proposed rule change is beneficial to Participants as it will provide increased protections that will prevent the execution of certain Complex Orders that were entered in error. The Exchange believes the proposal is pro-competitive and should serve to attract additional Complex Orders to the Exchange. Further, the Exchange does not believe the proposed change will not impose a burden on intramarket competition because it is available to all Participants.

For the reasons stated, the Exchange does not believe that the proposed rule changes will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act, and the Exchange believes the proposed change will, in fact, enhance competition.

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

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

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

Because the proposed rule change does not (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act<sup>20</sup> and Rule 19b-4(f)(6) thereunder.<sup>21</sup>

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<sup>19</sup> See supra, note 3.

<sup>20</sup> 15 U.S.C. 78s(b)(3)(A).

<sup>21</sup> 17 CFR 240.19b-4(f)(6). As required under Rule 19b-4(f)(6)(iii), the Exchange provided the Commission with written notice of its intent to file the proposed rule change, along with a brief description and the text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission.

A proposed rule change filed pursuant to Rule 19b-4(f)(6) under the Act<sup>22</sup> normally does not become operative for 30 days after the date of its filing. However, Rule 19b-4(f)(6)(iii)<sup>23</sup> permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposed rule change may become operative upon filing. The Exchange states that waiver of the operative delay would be consistent with the protection of investors and the public interest because it will allow the Exchange to immediately provide Participants with additional protections for Complex Orders submitted and executed on the Exchange. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. Therefore, the Commission hereby waives the operative delay and designates the proposal as operative upon filing.<sup>24</sup>

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

#### IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments

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<sup>22</sup> 17 CFR 240.19b-4(f)(6).

<sup>23</sup> 17 CFR 240.19b-4(f)(6)(iii).

<sup>24</sup> For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

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-BOX-2018-13 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-BOX-2018-13. 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, D.C. 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change.

Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to

make available publicly. All submissions should refer to File Number SR-BOX-2018-13, 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>25</sup>

Eduardo A. Aleman  
Assistant Secretary

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<sup>25</sup> 17 CFR 200.30-3(a)(12).