

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-86682; File No. SR-MIAX-2019-37)

August 14, 2019

Self-Regulatory Organizations; Miami International Securities Exchange, LLC; Notice of Filing of a Proposed Rule Change to Amend Exchange Rule 518, Complex Orders, to Adopt New Interpretation and Policy .07

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹ and Rule 19b-4 thereunder,² notice is hereby given that on August 9, 2019, Miami International Securities Exchange, LLC (“MIAX Options” or the “Exchange”) filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange is filing a proposal to amend Exchange Rule 518, Complex Orders, to adopt new Interpretation and Policy .07.

The text of the proposed rule change is available on the Exchange’s website at <http://www.miaxoptions.com/rule-filings/> at MIAX Options’ principal office, 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

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

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 proposes to amend Exchange Rule 518, Complex Orders, to adopt new Interpretation and Policy .07, SPIKES Combo Orders, to further facilitate delta neutral transactions for investors that use complex orders to trade SPIKES options.

Complex Orders on the Exchange

Under the Exchange’s current rule a “complex order” is any order involving the concurrent purchase and/or sale of two or more different options in the same underlying security (the “legs” or “components” of the complex order), for the same account, in a ratio that is equal to or greater than one-to-three (.333) and less than or equal to three-to-one (3.00) and for the purposes of executing a particular investment strategy.³ This allows the Exchange to place the complex strategy⁴ on the Exchange’s Strategy Book.⁵ All strategies placed on the Exchange’s Strategy Book conform to this allowable ratio (“conforming strategy”).⁶ The ratio between the size of the smallest sized option component and the largest sized option component must be

³ See Exchange Rule 518(a)(5).

⁴ The term “complex strategy” means a particular combination of components and their ratios to one another. New Complex strategies can be created as the result of the receipt of a complex order or by the Exchange for a complex strategy that is not currently in the System. The Exchange may limit the number of new complex strategies that may be in the System at a particular time and will communicate this limitation to Members via Regulatory Circular. See Exchange Rule 518(a)(6).

⁵ The “Strategy Book” is the Exchange’s electronic book of complex orders and complex quotes. See Exchange Rule 518(a)(17).

⁶ The Exchange notes that orders representing non-conforming strategies are rejected.

equal to or greater than one-to-three (1:3) or less than or equal to three-to-one (3:1). (E.g., Buy 30 XYZ May 18 Calls, Sell 10 XYZ April 16 Calls (30:10 or 3:1))

A complex order can also be a “stock-option order.” A stock-option order is an order to buy or sell a stated number of units of an underlying security (stock or Exchange Traded Fund Share (“ETF”)) or a security convertible into the underlying stock (“convertible security”) coupled with the purchase or sale of options contract(s) on the opposite side of the market representing either (i) the same number of units of the underlying security or convertible security, or (ii) the number of units of the underlying stock necessary to create a delta neutral position, but in no case in a ratio greater than eight-to-one (8.00), where the ratio represents the total number of units of the underlying security or convertible security (i.e., contracts) in the option leg to the total number of units of the underlying security (i.e., 100 shares) or convertible security in the stock leg.⁷

An option’s price can be influenced by a number of different factors. Some of these are known as the “Greeks” because they are commonly abbreviated with Greek letters; Delta, Gamma, Theta, and Vega.

Delta

The Delta (Δ) is a measure of the change in an option’s price (premium of an option) resulting from a change in the underlying security. The value of Delta ranges from -100 to 0 for puts and 0 to 100 for calls (multiplied by 100 to shift the decimal). Puts generate negative delta because they have a negative relationship with the underlying; that is, put premiums fall when the underlying rises and vice versa.

⁷ See Exchange Rule 518(a)(5).

Conversely, call options have a positive relationship with the price of the underlying: if the underlying rises, so does the call premium provided there are no changes in other variables such as implied volatility or time remaining until expiration. If the price of the underlying falls, the call premium will also decline provided all other things remain constant.⁸

Delta changes as an option becomes more valuable or in-the-money. In-the-money means that the value of the option increases due to the option's strike price being more favorable to the underlying's price. As the option gets further in the money, Delta approaches 100 on a call and -100 on a put with the extremes eliciting a one-for-one relationship between changes in the option price and changes in the price of the underlying. In effect, at Delta values of -100 and 100, the option behaves like the underlying in terms of price changes.⁹

Gamma

The Gamma (Γ), sometimes referred to as the option's curvature, is the rate of change in the delta as the underlying price changes. The gamma is usually expressed in deltas gained or lost per one-point change in the underlying, with the delta increasing by the amount of gamma when the underlying rises and falling by the amount of the gamma when the underlying falls. If an option has a gamma of 5, for each point rise (fall) in the price of the underlying, the option will gain (lose) 5 deltas. If the option initially has a delta of 25 and the underlying moves up (down) one full point, the new delta will be 30 (20).¹⁰

⁸ John Summa, Option Greeks: The 4 Factors to Measure Risks, Investopedia (July 18, 2019), <https://www.investopedia.com/trading/getting-to-know-the-greeks/>

⁹ See id.

¹⁰ SHELDON NATENBERG, OPTION VOLATILITY & PRICING 105 (McGraw Hill Education., 2nd ed. 2015).

Theta

An option's value is made up of intrinsic value¹¹ and time value.¹² As time passes, the time-value portion gradually disappears until, at expiration, the option is worth exactly its intrinsic value. The theta (Θ), or time decay, is the rate at which an option loses value as time passes, assuming that all other market conditions remain unchanged. It is usually expressed as value lost per one day's passage of time. An option with a theta of 0.05 will lose 0.05 in value for each day that passes with no movement in the underlying contract. If its theoretical value today is 4.00, one day later it will be worth 3.95. Two days later it will be worth 3.90.¹³

Vega

Just as option values are sensitive to changes in the underlying price (delta) and to the passage of time (theta), they are also sensitive to changes in volatility. Although the terms delta, gamma, and theta are used by all option traders, there is no one generally accepted term for the sensitivity of an option's theoretical value to a change in volatility. The most commonly used term in the trading community is vega.¹⁴

The vega of an option is usually expressed as the change in theoretical value for each one percentage point change in volatility. Because all options gain value with rising volatility, the vega for both calls and puts is positive. If an option has a vega of 0.15, for each percentage point increase (decrease) in volatility, the option will gain (lose) 0.15 in theoretical value. If the option

¹¹ The intrinsic value of an option is the difference between the price of the underlying asset and the strike price.

¹² Time value is equal to the option premium minus its intrinsic value.

¹³ SHELDON NATENBERG, *OPTION VOLATILITY & PRICING* 108 (2nd ed. 2015).

¹⁴ SHELDON NATENBERG, *OPTION VOLATILITY & PRICING* 110 (2nd ed. 2015).

has a theoretical value of 3.25 at a volatility of 20 percent, then it will have a theoretical value of 3.40 at a volatility of 21 percent and a theoretical value of 3.10 at a volatility of 19 percent.¹⁵

Options can be traded not only for profits attributable to movements in the underlying, but also for profits attributable to changes in other factors such as volatility or the amount of time left until expiration. An investor may seek exposure to the Greeks (i.e., Delta, Gamma, Theta, and Vega) while minimizing exposure to movements in the price of the underlying by creating a delta neutral position. An options position could be hedged with options exhibiting a delta that is opposite to that of the current options holding to maintain a delta neutral position.

Delta Neutral

Delta hedging is an options strategy that aims to reduce or hedge, the risk associated with price movements in the underlying asset.¹⁶ Strategies that involve creating a delta neutral position are typically used for one of three main purposes. They can be used to profit from time decay, or from volatility, or they can be used to hedge an existing position and protect it against small price movements.¹⁷

A delta neutral position is one in which the overall delta is approximately zero, which minimizes the options' price movements in relation to the underlying asset. For example, assume an investor holds one call option with a delta of 0.50, which indicates the option is at-the-money and wishes to maintain a delta neutral position. The investor could purchase an at-the-money put option with a delta of -0.50 to offset the positive delta, which would make the position have a

¹⁵ See id.

¹⁶ James Chen, *Delta Hedging*, Investopedia (May 22, 2019), <https://www.investopedia.com/terms/d/deltahedging.asp>

¹⁷ *Delta Neutral Options Strategies*, OptionsTrading.Org, <https://www.optionstrading.org/strategies/other/delta-neutral/>

delta of zero, thereby minimizing unwanted exposure to the price of the underlying and allowing the investor to focus instead on the desired exposure (i.e., Delta, Gamma, Theta, or Vega).

An options position could also be delta hedged using shares of the underlying stock. One share of the underlying stock has a delta of one as the stock's value changes by \$1. For example, assume an investor is long one call option on a stock with a delta of 0.75 - or 75 since options have a multiplier of 100. In this case, the investor could delta hedge the call option by selling 75 shares of the underlying stock.¹⁸

Following is an example of a delta neutral stock-option order which provides the investor volatility exposure.

Example #1

Strategy 1: Buy 8 XYZ May 18 Calls and Sell 100 Shares XYZ Underlying (25 times)

Buy 8(25x) XYZ May18 Calls

Sell 100(25x) Shares XYZ Underlying

Buy 8 XYZ May 18 Calls (12.5 delta)

Sell 100 XYZ Shares (100 delta) (where 100 shares of the underlying = 1 option contract)

$(8 * 12.5 \text{ delta}) + (-1 * 100 \text{ delta})$

$+100 \text{ delta} - 100 \text{ delta} = 0 \text{ delta}$

Strategy 1 Position = +200 XYZ May 18 Calls - 2500 shares of XYZ

Creation of a Synthetic Underlying Position

Buying a call on an equity stock and selling a put on an equity stock, (or selling a call on an equity stock and buying a put on an equity stock), with the same expiration date and strike price results in the creation of a synthetic stock position. For example, assume a call and put for XYZ have a strike price of \$15. Buying a call gives the buyer the right, but not the obligation, to purchase the stock (XYZ) at the strike price (\$15). Selling a put imposes upon the seller the

¹⁸ See supra note 16.

obligation, (and not just the right), to purchase the stock (XYZ) at the strike price (\$15), should the put be exercised.

If the stock price of XYZ is greater than the strike price of the call option (\$15) at expiration, the call option may be exercised and the holder of the call option has the right to purchase XYZ at \$15 resulting in a long position of 100 shares of XYZ. If the stock price of XYZ is greater than the strike price of the put option (\$15), the put expires worthless as the holder of the put can sell shares on the open market at a price greater than the option's strike price.

If the stock price of XYZ is less than the strike price of the call option (\$15), the call option expires worthless as it is cheaper to purchase the stock on the open market. If the stock price of XYZ is less than the strike price of the put option at expiration, the put will be exercised and the seller of the put will be obligated to purchase 100 shares of XYZ.

The net result is that the combination of buying a call and selling a put with the same expiration date and strike price results in an effective (or synthetic) long position of 100 shares of XYZ stock, regardless of whether the stock price is above or below the strike price of the call or put option. Similarly, selling the call and buying the put for the same expiration date and strike price would result in an effective (or synthetic) short position of 100 shares of XYZ stock (-100).

Example #2 below provides an example of a synthetic underlying.

Example #2 (Reversal or Conversion)

Strategy 2: Sell 1 XYZ May 15 Call, Buy 1 XYZ May 15 Put and Buy 100 XYZ Stock (25 times)

Combination:

Sell 1(25x) XYZ May 15 Calls

Buy 1(25x) XYZ May 15 Puts

Stock:

Buy 100(25x) shares XYZ Stock

Sell 1 XYZ May 15 Call (55 delta)

Buy 1 XYZ May 15 Put (45 delta)

Buy 100 XYZ shares (100 delta) (where 100 shares of stock = 1 option)

$(-1 * 55 \text{ delta}) + (1 * -45 \text{ delta}) + (1 * 100 \text{ delta})$

$-55 + (-45) + 100 = 0$

Strategy 2 Position = -25 May 15 Calls +25 May 15 Puts + 2500 XYZ Stock

Example #3 (Combining the Positions of Strategy 1 and 2)

Strategy 1 Position: +200 XYZ May 18 Calls – 2500 XYZ Stock

Strategy 2 Position: -25 XYZ May 15 Calls +25 XYZ May 15 Put + 2500 XYZ Stock

Net Position:

+ 200 XYZ May 18 Calls -25 XYZ May 15 Calls +25 XYZ May 15 Puts

+2500 deltas (200 x 12.5)

-2500 deltas (-25 x 55) + (25 x -45)

0 net deltas

Combined the equation may be expressed as: $(200 \times 12.5) + (-25 \times 55) + (25 \times -45) = 0$

The net position that results from combining Strategy 1 from Example #1 above and Strategy 2 from Example #2 above is a long position of 200 May 18 Calls – the May 15 Combination 25x (a short synthetic stock position of 2,500 shares as a result of selling a call and buying a put with the same expiration date and strike price.)¹⁹

¹⁹ Strategy 1 and Strategy 2 may currently be entered and executed on the Exchange under the Exchange's current rules.

Proposal

The Exchange now proposes to adopt Interpretation and Policy .07 to Rule 518, to codify and further facilitate delta neutral hedging for SPIKES options. Members²⁰ on the Exchange that transact in SPIKES options currently have the ability to submit complex orders which are delta neutral, so long as the component ratio conforms to the current rule for complex orders of 1:3/3:1.²¹

The Exchange now proposes to adopt a definition of a “SPIKES Combination” as a purchase (sale) of a SPIKES call option and the sale (purchase) of a SPIKES put option having the same expiration date and strike price. The Exchange also proposes to adopt a definition for “delta” as the positive (negative) number of SPIKES Combinations that must be sold (purchased) to establish a market neutral hedge with one or more SPIKES option series. Additionally, the Exchange proposes to adopt a definition for a “SPIKES Combo Order” as an order to purchase or sell one or more SPIKES option series and the offsetting number of SPIKES Combinations defined by the delta.

The Exchange proposes to adopt a provision that states for the purposes of this Rule a SPIKES Combo Order may not have a ratio greater than eight options to one SPIKES Combination (8:1). The Exchange proposes to use this ratio as it is already a defined conforming ratio in the Exchange’s System²² used for stock-option orders and it will allow the Exchange to implement the trading of SPIKES Combo Orders in a fashion similar to stock-option orders.

²⁰ The term “Member” means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed “members” under the Exchange Act. See Exchange Rule 100.

²¹ See Exchange Rule 518(a)(5).

²² The term “System” means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

Currently, stock-options may be traded in a ratio of eight-to-one, where the ratio represents contracts to the underlying security. Similarly, the Exchange proposes to use the same ratio for SPIKES Combo Orders where the ratio would represent contracts to SPIKES Combination Orders. Lastly, the Exchange proposes to add an internal cross reference to state that SPIKES Combo Orders will be subject to the same provisions of Rule 518 that complex orders on the Exchange are subject to, with the exception of the 1:3/3:1 ratio requirement as described in Rule 518.

SPIKES options do not have an underlying that can serve as a hedge, as the option is based on an Index. However, a synthetic underlying position may be created by purchasing a call and selling a put (or selling a call and purchasing a put), as discussed above. A SPIKES Combination Order creates a synthetic underlying position that is the functional equivalent of the stock leg in stock-option orders. Therefore, the Exchange proposes to amend the ratio from 1:3/3:1 to 8:1 for SPIKES Combo Orders to align the treatment of these orders to that of stock-option orders. This will allow for more transactions with better hedging opportunities.

Below is an example of a SPIKES delta neutral strategy that provides the investor exposure to the Greeks that may be created under the Exchange's proposal to allow SPIKES Combo Orders to leverage the 8:1 ratio afforded stock-option orders.

Example #4

Strategy A: Buy 8 SPIKES May 18 Calls, Sell 1 SPIKES May 15 Call, and Buy 1 SPIKES May 15 Put (25 times)

Calls:

Buy 8(25) SPIKES May 18 Calls

Combination:

Sell 1(25) SPIKES May 15 Call

Buy 1(25) SPIKES May 15 Puts

Buy 8 SPIKES May 18 Calls (12.5 delta)
 Sell 1 SPIKES May 15 Call (55 delta)
 Buy 1 SPIKES May 15 Put (45 delta)
 $(8*12.5) + (-1* 55) + (1 * -45)$
 $100 - 55 - 45 = 0$

Net Position: + 200 SPIKES May 18 Calls -25 SPIKES May 15 Calls +25 SPIKES May 15 Puts

+2500 deltas (200 x 12.5)
-2500 deltas (-25 x 55) + (25 x -45)
 0 net deltas

Combined the equation may be expressed as: $(200 \times 12.5) + (-25 \times 55) + (25 \times -45) = 0$

Example #4 illustrates a delta neutral position in SPIKES which is identical to the net delta neutral position demonstrated in Example #1 for a stock-option order. This position may be accomplished in a single transaction by using the proposed SPIKES Combo Order which includes a SPIKES Combination order. The SPIKES Combination order (sell call, buy put with the same expiration date and strike price) creates the synthetic underlying position for the SPIKES option, similar to the way selling the XYZ call and buying the XYZ put creates the synthetic stock position demonstrated in Example #3.

Under the Exchange's proposal, SPIKES Combination orders would be treated similar to the stock-leg component of a stock-option order. As demonstrated in Example #3 above, the stock leg component of a stock-option order can be created synthetically by selling a call and buying a put option with the same expiration date and strike price. The Exchange proposes to define this transaction as a SPIKES Combination order and allow SPIKES Combo Orders to be treated similarly to stock-option orders by permitting these orders to leverage the 8-1 ratio defined for stock-option orders. The Exchange believes that a ratio greater than three-to-one, but not greater than eight-to-one, would allow investors the opportunity to create additional delta neutral transactions with SPIKES Index options. Therefore, the Exchange proposes to adopt new

rule text to state that for the purposes of Rule 518 a SPIKES Combo Order may not have a ratio greater than eight-to-one, in order to facilitate hedging SPIKES options with SPIKES Combo Orders.

The Exchange represents that it has the System capacity and capability to handle the potential increase in transaction rates. Further, the Exchange represents that it has surveillances in place to surveil for conduct that violates the Exchange's rules, specifically as it pertains to delta neutral transactions as described herein.

2. Statutory Basis

MIAX Options believes that its proposed rule change is consistent with Section 6(b) of the Act²³ in general, and furthers the objectives of Section 6(b)(5) of the Act²⁴ 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 mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange's proposal promotes just and equitable principles of trade and removes impediments to and perfects the mechanisms of a free and open market and a national market system and, in general, protects investors and the public interest, by further facilitating the creation of delta neutral transactions in SPIKES options. Delta neutral strategies protect investors and the public interest by providing a means to gain exposure to other elements related to the price of an option while reducing the risk associated with changes in the price of the underlying. Permitting additional delta neutral transactions will improve liquidity in the

²³ 15 U.S.C. 78f(b).

²⁴ 15 U.S.C. 78f(b)(5).

marketplace which will benefit all investors. Additionally, the Exchange's proposal protects investors and the public interest as all the rules applicable to complex orders on the Exchange will apply equally to SPIKES Combo Orders, with the exception of the 3:1/1:3 ratio limitation.

The proposed 8:1 ratio for SPIKES Combo Orders is already a conforming ratio on the Exchange for stock-option orders. The Exchange's proposal promotes just and equitable principles of trade and removes impediments to and perfects the mechanisms of a free and open market and a national market system and, in general, protects investors and the public interest, by providing similar hedging capabilities as afforded stock-option orders.

Additionally, other exchanges that offer options on index products provide for the creation of delta neutral strategies.²⁵ Providing investors the ability to create delta neutral transactions similar to those created on other exchanges reduces investor confusion and in turn strengthens investor confidence in the marketplace by providing consistency among exchanges.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The Exchange's proposal will not impose any burden on inter-market competition as the Exchange's proposal is specifically for SPIKES Index options which are a Proprietary Product²⁶ of the Exchange, and are not listed or traded on any other venue.

The Exchange does not believe the proposed rule change will impose any burden on intra-market competition as the rules of the Exchange are applicable to all Members equally.

²⁵ See NYSE American Rule 965NY and Cboe Exchange Rule 24.20.

²⁶ The term "Proprietary Product" means a class of options that is listed exclusively on the Exchange and any of its affiliates. See Exchange Rule 100.

Any Member of the Exchange may trade SPIKES options and all Members can benefit from the creation of delta neutral transactions as described in this proposal.

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

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

Written comments were neither solicited nor received.

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 self-regulatory organization consents, the Commission will:

(A) by order approve or disapprove such proposed rule change, or

(B) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

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

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-MIAX-2019-37 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-MIAX-2019-37. 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. 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-MIAX-2019-37, 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.²⁷

Jill M. Peterson
Assistant Secretary

²⁷ 17 CFR 200.30-3(a)(12).