

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-84417; File No. SR-MIAX-2018-14)

October 12, 2018

Self-Regulatory Organizations; Miami International Securities Exchange, LLC; Order Granting Approval of a Proposed Rule Change to List and Trade Options on the SPIKES™ Index

I. Introduction

On June 28, 2018, Miami International Securities Exchange, LLC (“MIAX Options” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”), 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> a proposed rule change to list and trade options on the SPIKES™ Index (“SPIKES” or the “Index”), which measures expected 30-day volatility of the SPDR S&P 500 ETF Trust (“SPY”). The proposed rule change was published for comment in the Federal Register on July 16, 2018.<sup>3</sup> On August 28, 2018, pursuant to Section 19(b)(2) of the Act,<sup>4</sup> the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to approve or disapprove the proposed rule change.<sup>5</sup> The Commission received no comments on the proposal. This order approves the proposed rule change.

II. Description of the Proposed Rule Change

The Exchange proposes to list and trade cash-settled, European-style options on the

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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> See Securities Exchange Act Release No. 83619 (July 11, 2018), 83 FR 32932 (“Notice”).

<sup>4</sup> 15 U.S.C. 78s(b)(2).

<sup>5</sup> See Securities Exchange Act Release No. 83975, 83 FR 44929 (September 4, 2018). The Commission designated October 14, 2018 as the date by which the Commission shall approve or disapprove, or institute proceedings to determine whether to approve or disapprove, the proposed rule change.

Index, which measures expected thirty-day volatility of SPY.<sup>6</sup>

As more fully set forth in the Notice, the Index is calculated using a methodology developed by T3i Pty Ltd, which uses published real-time prices and bid/ask quotes of SPY options.<sup>7</sup> The Index will be calculated and maintained by the Exchange. The Index uses a proprietary “price dragging” technique to determine the ongoing price for each individual option used in the calculation of the Index (“Reference Price”), which the Exchange believes should materially reduce erratic movements of the Index value as quotations on out-of-the-money options are rapidly altered during times of low liquidity.<sup>8</sup> The Exchange also notes the Index’s exclusion rule (“truncation method”), which determines how far away from the money to exclude strikes from the volatility calculation. When two consecutive option prices of \$0.05 or less are encountered when moving away from the at-the-money strike, the truncation method excludes all the strikes beyond that level, from each of the put and call side.<sup>9</sup> The Exchange believes that this exclusion methodology should result in a calculation outcome that better reflects the expected measure of volatility.<sup>10</sup>

The Index will be updated on a real-time basis on each trading day beginning at 9:30 a.m. and ending at 4:15 p.m. (New York time).<sup>11</sup> Values of the Index will be disseminated to the Options Price Reporting Authority (“OPRA”) at least every fifteen seconds during the

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<sup>6</sup> According to the Exchange, SPY is historically the largest and most actively-traded exchange-traded fund in the United States as measured by its assets under management and the value of shares traded. See Notice, supra note 3, at 32936.

<sup>7</sup> See id. at 32933-36 (describing in more detail the calculation methodology for the Index).

<sup>8</sup> See id. at 32934-35 (describing in more detail the “price dragging” methodology).

<sup>9</sup> See id. at 32935 (describing in more detail the truncation method).

<sup>10</sup> See id.

<sup>11</sup> If the current published value of a component is not available, the last published value will be used in the calculation.

Exchange's regular trading hours, pursuant to Exchange Rules 1802 and 1803.<sup>12</sup> In the event the Index ceases to be maintained or calculated, or its values are not disseminated at least every fifteen seconds by a widely available source, the Exchange will not list any additional series for trading and may, for the purpose of maintaining a fair and orderly market and protecting investors, limit transactions in certain options on the Index to closing transactions only.

The Exchange proposes that the standard trading hours for index options (9:30 a.m. to 4:15 p.m., New York time) will apply to options on the Index. Options on the Index will expire on the Wednesday that is thirty days prior to the third Friday of the calendar month immediately following the expiration month.<sup>13</sup> The exercise-settlement amount will be equal to the difference between the final settlement value of the Index and the exercise price of the option, multiplied by \$100. Exercise will result in the delivery of cash on the business day following expiration.

To determine the final settlement value of the Index, the Exchange will perform an Index settlement price calculation, which includes all SPY options that expire thirty days after the SPIKES settlement that are included in the settlement ("constituent options"). To perform the Index settlement price calculation, each constituent option will be assigned a Settlement Reference Price ("SRP"). Each SRP will be determined through the proposed "SPIKES Special Settlement Auction," which will be conducted once per month, in the constituent options traded on the Exchange, on final settlement day. The SPIKES Special Settlement Auction will utilize the Exchange's existing standard opening process, as described in Exchange Rule 503(f), with a

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<sup>12</sup> The Exchange notes that it is currently disseminating the cash values of the Index to OPRA under the ticker symbol "SPIKE" in at least fifteen second intervals. See Notice, supra note 3, at 32936.

<sup>13</sup> If that Wednesday or the Friday that is thirty days following that Wednesday is an Exchange holiday, the final settlement value will be calculated on the business day immediately preceding that Wednesday.

proposed modification to account for situations where there remains an order imbalance<sup>14</sup> that must be filled at the opening price after the requisite number of iterations of the imbalance process takes place under the Exchange’s existing opening process.<sup>15</sup>

All orders for participation in the SPIKES Special Settlement Auction that are related to positions in, or a trading strategy involving, Index options (“SPIKES Strategy Orders”) and any change to or cancellation of any such order: (i) must be received prior to the applicable SPIKES Strategy Order cut-off time for the constituent option series, as determined by the Exchange, which may be no earlier than the opening of the live order window (currently, 7:30 a.m.) or the live quote window (for the SPIKES Special Settlement Auction, anticipated to be 8:30 a.m.), and no later than the opening of trading in the series; and (ii) may not be cancelled or modified after the applicable SPIKES Strategy Order cut-off time, unless the SPIKES Strategy Order is not executed in the SPIKES Special Settlement Auction and the cancellation or modification is submitted after the SPIKES Special Settlement Auction is concluded. The Exchange states that it will generally consider orders to be SPIKES Strategy Orders if the orders possess the following characteristics: (i) they are for options with the expiration that will be used to calculate the exercise or final settlement value of the applicable volatility index option contract; (ii) they are for options spanning the full range of strike prices for the appropriate expiration for options that will be used to calculate the exercise or final settlement value of the applicable volatility index option contract, but not necessarily every available strike price; and (iii) they are

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<sup>14</sup> An “imbalance” occurs when there is insufficient liquidity to satisfy all trading interest due an execution at a certain price. See Exchange Rule 503(f)(2)(v).

<sup>15</sup> The proposed modification to the Exchange’s existing opening process to facilitate the execution of this remaining must-fill interest is referred to as the special settlement imbalance process (“SSIP”). See proposed Rule 1809, Interpretation and Policy .06. For more detail about the operation of the SPIKES Special Settlement Auction, including an example, see Notice, supra note 3, at 32939-41.

for put options with strike prices less than the at-the-money strike price, for call options with strike prices greater than the at-the-money strike price, or for put and call options with at-the-money strike prices. The Exchange notes that it may also deem order types other than those provided above as SPIKES Strategy Orders if the Exchange determines that to be the case based on the applicable facts and circumstances.<sup>16</sup>

The Exchange believes that the Index, including the settlement value, will not be readily susceptible to manipulation.<sup>17</sup> According to the Exchange, the “price dragging” technique, which is used to determine the ongoing Reference Price for each individual option used in the calculation of the Index, helps prevent market manipulation by utilizing the most recent trade price as the Reference Price, which the Exchange believes to be a more accurate methodology than alternatives.<sup>18</sup> Further, the Exchange believes that using SPY options as the components for a volatility index has the potential to result in an extremely liquid volatility product with exceptionally tight spreads, which consequently would not be readily susceptible to fraudulent and manipulative acts.<sup>19</sup> For example, the Exchange notes that SPY options regularly trade four to five million contracts a day and have twenty to thirty million contracts in open interest, and are traded on all fifteen option exchanges.<sup>20</sup> Since SPY options are traded on all fifteen option exchanges, the Exchange believes that market participants may take advantage of arbitrage opportunities across multiple venues.<sup>21</sup>

The Exchange proposes to adopt minimum trading increments for options on the Index to

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<sup>16</sup> See Notice, *supra* note 3, at 32939.

<sup>17</sup> See *id.* at 32942-43.

<sup>18</sup> See *id.* at 32942.

<sup>19</sup> See *id.* at 32943.

<sup>20</sup> See *id.*

<sup>21</sup> See *id.*

be \$0.05 for series trading below \$3, and \$0.10 for series trading at or above \$3. The Exchange also proposes to set the minimum strike price interval for options on the Index at \$0.50 where the strike price is less than \$15, \$1 or greater where the strike price is between \$15 and \$200, and \$5 or greater where the strike price is greater than \$200. Currently, when new series of options on the Index with a new expiration date are opened for trading, or when additional series of options on the Index in an existing expiration date are opened for trading as the current value of the Index moves substantially from the exercise prices of series already opened, the exercise prices of such new or additional series must be reasonably related to the current value of the Index at the time such series are first opened for trading.<sup>22</sup> The Exchange, however, proposes to eliminate this range limitation that would otherwise limit the number of \$1 strikes that may be listed in options on the Index. The Exchange's proposal to eliminate this range limitation is identical to strike price intervals adopted by the Cboe Exchange, Inc. ("Cboe") for the Cboe Volatility Index ("VIX").<sup>23</sup>

The Exchange initially proposes to list options on the Index in up to twelve standard monthly expirations. In addition, long-term option series having up to sixty months to expiration,<sup>24</sup> Short Term Option Series,<sup>25</sup> and Quarterly Options Series<sup>26</sup> may also be traded. Options on the Index will be quoted and traded in U.S. dollars.<sup>27</sup>

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<sup>22</sup> See Exchange Rule 1809(c)(3). The term "reasonably related to the current index value of the underlying index" means that the exercise price is within thirty percent of the current index value, as defined in Exchange Rule 1809(c)(4).

<sup>23</sup> See Securities Exchange Act Release No. 63155 (October 21, 2010), 75 FR 66402 (October 28, 2010) (SR-CBOE-2010-096).

<sup>24</sup> See Exchange Rule 1809(b)(1).

<sup>25</sup> See Exchange Rule 1809, Interpretations and Policies .01.

<sup>26</sup> See Exchange Rule 1809, Interpretations and Policies .02.

<sup>27</sup> See Exchange Rule 1809(a)(1).

The Exchange believes that the Index is a broad-based index, as that term is defined in Exchange Rule 1801(k).<sup>28</sup> The Exchange proposes that the Index should be treated as a broad-based index for purposes of position limits, exercise limits, and margin requirements. Accordingly, the Exchange proposes no position or exercise limits for options on the Index<sup>29</sup> and the Exchange proposes to apply margin requirements that are identical to those applied for other broad-based index options.

In addition, the Exchange proposes that the trading of options on the Index will be subject to the same rules governing the trading of Exchange index options, including sales practice rules, margin requirements, and trading rules. Trading of options on the Index will also be subject to the trading halt procedures applicable to other index options traded on the Exchange.<sup>30</sup> Further, Chapter XIII of the Exchange's rules, which is designed to protect public customer trading, will apply to trading in options on the Index.

The Exchange represents that it has an adequate surveillance program in place for options on the Index and intends to apply those same program procedures that it applies to the Exchange's other options products. In addition, the Exchange notes that several new

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<sup>28</sup> Exchange Rule 1801(k) defines the terms "market index" and "broad-based index" to mean an index designed to be representative of a stock market as a whole or of a range of companies in unrelated industries.

<sup>29</sup> As noted above, the Index will settle using published prices and quotes from its corresponding SPY options. The Exchange asserts that because the size of SPY options market (as well as the underlying SPY market) is so large, the Exchange believes that there is minimal risk of manipulation by virtue of position size in SPIKES options. The Exchange notes that options on Cboe's VIX are also not subject to any position or exercise limits. See Notice, supra note 3, at 32941. See also Securities Exchange Act Release No. 54019 (June 20, 2006), 71 FR 36569 (June 27, 2006) (SR-CBOE-2006-55). Additionally, the Exchange notes there are currently a number of actively-traded broad-based index options, e.g., DJX, NDX, SPX, that are also not subject to any position or exercise limits. See Notice, supra note 3, at 32941 n.56.

<sup>30</sup> See Exchange Rule 1808(c).

surveillances related to the Index will be added to its surveillance program.<sup>31</sup> Specifically, the Exchange notes that it has a Regulatory Services Agreement (“RSA”) in place with the Financial Industry Regulatory Authority (“FINRA”) to conduct cross-market surveillances on its behalf and has expanded the RSA to include a new options pattern designed to determine whether any market participants influenced the settlement price of an a.m. cash-settled index product to benefit their expiring index option position. Further, the Exchange represents that both MIAX Options Regulation and FINRA Options Regulation will manually review options activity during each monthly settlement process. After manually reviewing settlement process activity over the course of months, the Exchange and FINRA will determine whether additional reports or enhancements to the cash-settled report(s) are required.<sup>32</sup> Additionally, the Exchange notes that it is a member of the Intermarket Surveillance Group, through which it can coordinate surveillance and investigative information sharing in the stock and options markets with all U.S. registered stock and options markets. The Exchange also represents that it has the necessary system capacity to support additional quotations and messages that will result from the listing and trading of options on the Index.

### III. Discussion and Commission Findings

After careful consideration of the proposal, the Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange,<sup>33</sup> and, in particular, the requirements of Section 6 of

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<sup>31</sup> See Notice, supra note 3, at 32942.

<sup>32</sup> See id.

<sup>33</sup> In approving this proposed rule change, the Commission has considered the proposed rule’s impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).



the Act.<sup>34</sup> Specifically, the Commission finds that the proposed rule change is consistent with Section 6(b)(5) of the Act,<sup>35</sup> which requires, among other things, that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, 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. Specifically, the Commission believes that the proposed Index options provide investors with an additional trading and hedging mechanism.

The Commission believes that the Exchange's proposal is consistent with the Act.<sup>36</sup> As noted above, the Index is calculated using published real-time price and bid/ask quotes of SPY options and measures changes in the expected thirty-day volatility of SPY. The Commission notes that SPY options are the most actively-traded options in terms of average daily volume. After careful consideration, the Commission has determined that the Exchange's proposal to list and trade options on the Index, including the proposed settlement process, is comparable to the listing and trading of options on similar volatility indexes.<sup>37</sup>

The Commission also believes that permitting \$0.50 strike price intervals if the strike price is less than \$15 and \$1.00 strike price intervals if the strike price is between \$15 and \$200 will provide investors with added flexibility in the trading of these options and will further the

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<sup>34</sup> 15 U.S.C. 78f.

<sup>35</sup> 15 U.S.C. 78f(b)(5).

<sup>36</sup> In approving this proposed rule change to list and trade options on the Index, the Commission is not determining whether the Index is a "narrow-based" security index as that term is defined in the Act. See 15 U.S.C. 78c(a)(55)(B).

<sup>37</sup> See Securities Exchange Act Release No. 49563 (April 14, 2004), 69 FR 21589 (April 21, 2004) (SR-CBOE-2003-40) (order approving the listing and trading of options on the VIX). See also Securities Exchange Act Release No. 71365 (January 22, 2014), 79 FR 4512 (January 28, 2014) (SR-ISE-2013-42) (order approving the listing and trading of options on the Nations VolDex Index).

public interest by allowing investors to establish positions that are better tailored to meet their investment objectives. As noted above, the Exchange proposes to provide an exception for the proposed Index options from the existing requirement that exercise prices of new or additional series must be reasonably related to the current value of the Index at the time such series are first opened for trading.<sup>38</sup> The Commission believes that this change is consistent with the Act because it should provide investors added flexibility to meet their investment objectives.<sup>39</sup> The Commission also notes that the Exchange has represented that it has the necessary systems capacity to handle the additional traffic associated with the listing and trading of this new product and it expects that the Exchange considered this expansion of the permissible range of strike prices in making such a representation.<sup>40</sup>

The Commission also believes that it is consistent with the Act to apply margin requirements to the proposed Index options that are otherwise applicable to options on broad-based indexes. The Commission further believes that the Exchange's proposed minimum trading increment, series openings, and other aspects of the proposed rule change are appropriate and consistent with the Act.

As a national securities exchange, the Exchange is required, under Section 6(b)(1) of the Act,<sup>41</sup> to enforce compliance by its members and persons associated with its members with the provisions of the Act, Commission rules and regulations thereunder, and its own rules. The Exchange has asserted its belief that there is a low potential for manipulation of the Index

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<sup>38</sup> See supra notes 22-23 and accompanying text.

<sup>39</sup> The Commission notes that Cboe previously eliminated the band that limited the number of \$1 strikes that could be listed on VIX options. See Securities Exchange Act Release No. 63155 (October 21, 2010), 75 FR 66402 (October 28, 2010) (SR-CBOE-2010-096).

<sup>40</sup> See Notice, supra note 3, at 32942.

<sup>41</sup> 15 U.S.C. 78f(b)(1).

settlement value.<sup>42</sup> The Exchange has represented that it has an adequate surveillance program in place for options traded on the Index, and will monitor for any potential manipulation of the Index settlement value according to its current surveillance procedures and additional surveillance measures.<sup>43</sup> The Commission also notes the Exchange's representation that it has the necessary systems capacity to support the new options series that will result from this proposal.<sup>44</sup>

IV. Conclusion

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Act,<sup>45</sup> that the proposed rule change (SR-MIAX-2018-14) be, and hereby is, approved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>46</sup>

Eduardo A. Aleman  
Assistant Secretary

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<sup>42</sup> See Notice, supra note 3, at 32942-43.

<sup>43</sup> See supra notes 31- 32 and accompanying text.

<sup>44</sup> See id.

<sup>45</sup> 15 U.S.C. 78s(b)(2).

<sup>46</sup> 17 CFR 200.30-3(a)(12).