

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-63927; File No. SR-CBOE-2011-008)

February 17, 2011

Self-Regulatory Organizations; Chicago Board Options Exchange, Incorporated; Notice of Proposed Rule Change to Permit the Listing of \$0.50 and \$1 Strike Price Increments on Certain Options Used to Calculate Volatility Indexes

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 February 4, 2011, the Chicago Board Options Exchange, Incorporated (“CBOE” or “Exchange”) filed with the Securities and Exchange Commission (the “Commission”) the 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

CBOE proposes to amend Rules 5.5 and 24.9 to permit the listing of strike prices in \$0.50 intervals where the strike price is less than \$75, and strike prices in \$1.00 intervals where the strike price is between \$75 and \$150 for option series used to calculate volatility indexes. The text of the rule proposal is available on the Exchange’s website (<http://www.cboe.org/legal>), at the principal office of the Exchange, 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 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 those statements may be examined at the places

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

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

specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

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

1. Purpose

The purpose of this proposed rule change is to permit the Exchange to list strike prices in \$0.50 intervals where the strike price is less than \$75, and strike prices in \$1.00 intervals where the strike price is between \$75 and \$150 for option series<sup>3</sup> used to calculate volatility indexes.

To effect this change, the Exchange is proposing to add new Interpretation and Policy .19 to Rule 5.5, Series of Option Contracts Open for Trading, and new Interpretation and Policy .12 to Rule 24.9, Terms of Index Option Contracts. These new provisions will permit the listing of strike prices in \$0.50 intervals where the strike price is less than \$75, and strike prices in \$1.00 intervals where the strike price is between \$75 and \$150 for option series used to calculate volatility indexes. The Exchange is also proposing to amend Interpretation and Policy .08 to Rule 5.5 to permit \$0.50 strike price intervals for options on exchange-traded funds that are used to calculate a volatility index by cross-referencing Rule 5.5.19.

The CBOE Volatility Index ("VIX") is widely recognized as a benchmark measure of the expected volatility of the S&P 500 Index. In less than four years of trading, VIX options have become the second most actively traded index option class in the U.S., averaging 248,000 contracts per day in 2010. Combined trading activity in listed VIX options and futures in 2010

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<sup>3</sup> For example, CBOE calculates the CBOE Gold ETF Volatility Index ("GVZ"), which is based on the VIX methodology applied to options on the SPDR Gold Trust ("GLD"). The current filing would permit \$0.50 strike price intervals for GLD options where the strike price is \$75 or less. CBOE is currently permitted to list strike prices in \$1 intervals for GLD options (where the strike price is \$200 or less), as well as for other exchange-traded fund ("ETF") options. See Rule 5.5.08.

accounted for over \$42 million of “vega” (the unit of trading commonly used for over-the-counter (“OTC”) volatility contracts) per day, which represents a significant portion of all volatility trading executed in both listed and OTC markets.

The VIX methodology is derived from a body of research showing that it is possible to create pure exposure to volatility by assembling a special portfolio of options. While the price of a single option depends on both the underlying price and volatility, this special portfolio is constructed, in the aggregate, to eliminate the stock price dependence. In theory, this option portfolio would be comprised of an infinite number of options with continuous strike prices. In practice, however, the options that are used to calculate VIX – as well as other volatility indexes – are finite in number and are subject to a minimum interval between strike prices. As such, the VIX methodology was designed to accommodate certain limitations inherent in “real-world” options trading, such as a limited number of available options.

CBOE and CBOE Futures Exchange, LLC (“CFE”) list options and futures on the VIX, which is calculated using S&P 500 Index (“SPX”) options. The Exchange believes that one of the reasons for the success of products based on the VIX is a widespread recognition that VIX is an accurate and reliable measure of expected volatility. CBOE has found that both the range of strike prices for option series used in the VIX calculation and the interval between the strike prices (measured as a percentage of the underlying SPX value) of those options are important factors contributing to the calculation of a meaningful index value. The Exchange notes that the minimum strike price interval for SPX options is \$5.00, which is 0.4% of the underlying index level of 1286.12 as of January 31, 2011. The permissible strike price interval for SPX options allows approximately 200 to 250 SPX series to be included in the VIX calculation on a typical day. Additionally, CBOE endeavors to list enough SPX options to ensure that the actual option

listings do not deviate too far from the theoretical assumptions underpinning the VIX methodology.

As CBOE seeks to apply the VIX methodology to options on ETFs and individual equity securities, the Exchange believes that it is appropriate to use option series that are comparable, in terms of strike price range and strike price interval, to SPX option series in order to calculate volatility index values that are recognized to be as accurate and reliable as the VIX values. The Exchange believes that allowing equivalent strike price intervals for options overlying single stocks, ETFs and indexes with prices of \$150 or less, will allow the Exchange to calculate volatility indexes that are better estimates of the expected volatility of option classes with underlying prices that are low relative to the level of the S&P 500. For example, the minimum strike price interval for United States Oil Fund, LP (“USO”) options, the underlying for the CBOE Crude Oil ETF Volatility Index (“OVX”), is \$1. When this is measured in absolute terms it appears to be five times narrower than the minimum strike interval for SPX options. However, the relevant measurement for a volatility index is the strike price interval as a percentage of the price of underlying; by applying this metric, the strike price interval for USO options is 2.6%,<sup>4</sup> more than six times wider than SPX. Due to the limited permissible strike price interval for USO options, only about 40 to 60 USO options are used to calculate OVX on a typical day. This is despite covering a wider range of strike prices than the strike price range of SPX options that are used to calculate VIX. The Exchange notes that the SPX-equivalent strike price interval for a \$100 stock or ETF would be approximately \$0.40, less than the \$0.50 or \$1.00 intervals contemplated in this proposal.

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<sup>4</sup> The closing price for USO shares on January 31, 2011 was \$38.61.

The Exchange believes that its proposal will limit the expansion of strike prices because it will only apply to options that are used to calculate a volatility index. Further limiting the expansion of strike prices, the Exchange is proposing to list series in \$0.50 intervals only for strike prices less than \$75 and \$1.00 intervals for strike prices between \$75 and \$150.

### Capacity

CBOE has analyzed its capacity and represents that it believes the Exchange and the Options Price Reporting Authority have the necessary systems capacity to handle the additional traffic associated with the listing strike prices in \$0.50 intervals where the strike price is less than \$75, and strike prices in \$1.00 intervals where the strike price is between \$75 and \$150 for option series used to calculate volatility indexes that would result from the current rule filing.

## 2. Statutory Basis

The Exchange believes this rule proposal is consistent with the Act and the rules and regulations under the Act applicable to a national securities exchange and, in particular, the requirements of Section 6(b) of the Act.<sup>5</sup> Specifically, the Exchange believes that the proposed rule change is consistent with the Section 6(b)(5) Act<sup>6</sup> requirements that the rules of an exchange be designed to promote just and equitable principles of trade, to prevent fraudulent and manipulative acts and, in general, to protect investors and the public interest, and believes that the proposed limited expansion of strike prices will enable the calculation of volatility indexes that are recognized to be as accurate and reliable as VIX values. While this proposal will generate additional quote traffic, the Exchange does not believe that this increased traffic will become unmanageable since the proposal is restricted to a limited number of classes. Further,

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

<sup>6</sup> 15 U.S.C. 78f(b)(5).

the Exchange does not believe that the proposal will result in a material proliferation of additional series because it is restricted to a limited number of classes.

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 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

No written comments were solicited or received with respect to 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 (i) as the Commission may designate up to 90 days of such date 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](mailto:rule-comments@sec.gov). Please include File Number SR-CBOE-2011-008 on the subject line.

Paper comments:

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

All submissions should refer to File Number SR-CBOE-2011-008. 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-2011-008 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>7</sup>

Cathy H. Ahn  
Deputy Secretary

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<sup>7</sup> 17 CFR 200.30-3(a)(12).