



May 30, 2013

**VIA ELECTRONIC MAIL**

Melissa Jurgens  
Office of the Secretariat  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21<sup>st</sup> Street, N.W.  
Washington, DC 20581

**Re: Rule Filing SR-OCC-2013-08 Rule Certification**

Dear Ms. Jurgens:

Enclosed is a copy of the above-referenced rule filing, which The Options Clearing Corporation (“OCC” or “Corporation”) is submitting pursuant to the self-certification procedures of Commodity Futures Trading Commission (the “CFTC” or “Commission”) Regulation 40.6. The date of implementation of the rule is the later of 10 business days following receipt of the rule filing by the CFTC hereof or the date the proposed rule is approved by the Securities and Exchange Commission (the “SEC”) or otherwise becomes effective under the Securities Exchange Act of 1934 (the “Exchange Act”). This rule filing has been, or is concurrently being, submitted to the SEC under the Exchange Act.

In conformity with the requirements of Regulation 40.6(a)(7), OCC states the following:

**Explanation and Analysis**

The purpose of this proposed rule change and advance notice is to provide for enhancements in OCC’s margin model for longer-tenor options (i.e., those options with at least three years of residual tenor) and to reflect those enhancements in the description of OCC’s margin model in OCC’s Rules. OCC also proposes to make changes to the description of OCC’s margin model to clarify that description.

On August 30, 2012, OCC submitted a rule change with respect to OCC’s proposal to clear certain over-the-counter options on the S&P 500 Index (“OTC Options”). The OTC Options Rule Filing, as amended, added a statement appearing

before Section 6 of Article XVII of OCC's By-Laws that "THE BY-LAWS IN THIS SECTION (OTC INDEX OPTIONS) ARE INOPERATIVE UNTIL FURTHER NOTICE BY THE CORPORATION" to clarify that OCC would not commence clearing OTC Options until the changes being made to OCC's margin model for longer-tenor options, as provided in this rule change and advance notice, were put in place, notwithstanding whether the OTC Options Rule Filing had already been approved. OCC is now proposing to remove this statement from Section 6, which will allow OCC to commence clearing of OTC Options on the S&P 500 Index.

Additional information concerning OCC's proposal to clear OTC Options is included in the OTC Options Rule Filing. As described in the OTC Options Rule Filing, OCC intends to use its STANS margin system to calculate margin requirements for OTC Options on the same basis as for exchange-listed options cleared by OCC. However, OCC is proposing to implement enhancements to its risk models for all longer-tenor options (including OTC Options) in order to better reflect certain risks of longer-tenor options. The changes described herein would apply to all longer-tenor options cleared by OCC and would be implemented before OCC begins clearing OTC Options.

#### *Margin Enhancements for Longer-Tenor Options*

The proposed rule change includes daily OTC quotes, variations in implied volatility and valuation adjustments in the modeling of all longer-tenor options under STANS, thereby enhancing OCC's ability to set margin requirements through the use of risk-based models and parameters and encouraging clearing members to have sufficient financial resources to meet their obligations to OCC. The proposed rule change would not affect OCC's safeguarding of securities and funds in its custody or control because though it may change margin requirements in respect of certain longer-tenor options, it does not change the manner in which margin assets are pledged. In addition, the proposed rule change allows OCC to enhance its risk management procedures and controls related to longer-tenor options in accordance with the SEC's clearing agency standards.

OCC calculates clearing-level margin using STANS, which determines the minimum expected liquidating value of each account using a large number of projected price scenarios created by large-scale Monte Carlo simulations. OCC is proposing to implement enhancements to the STANS margin calculation methodology with respect to longer-tenor options and to amend Rule 601 to reflect these enhancements as well as to make certain clarifying changes in the description of STANS in Rule 601. The specific details of the calculations performed by STANS are maintained in OCC's proprietary procedures for the calculation of margin and coded into the computer systems used by OCC to calculate daily margin requirements.

OCC has proposed at this time to clear only OTC Options on the S&P 500 Index and only such options with tenors of up to five years. However, OCC currently clears FLEX Options with tenors of up to fifteen years. While OCC believes that its current risk management practices are adequate for current clearing activity, OCC proposes to implement risk modeling enhancements with respect to all longer-tenor options.

#### *Daily OTC Indicative Quotes*

In general, the market for listed longer-tenor options is less liquid than the market for other options, with less volume and therefore less price information. In order to supplement OCC's pricing data derived from the listed markets, and improve the price discovery process for longer-tenor options, OCC proposes to include in the daily dataset of market prices used by STANS to value each portfolio indicative daily quotations obtained through a third-party service provider that obtains these quotations through a daily poll of OTC derivatives dealers. A third-party service provider was selected to provide this data in lieu of having the data provided directly by the OTC derivatives dealers in order to avoid unnecessarily duplicating reporting that is already done in the OTC markets.

#### *Variations in Implied Volatility*

To date, the STANS methodology has assumed that implied volatilities of option contracts do not change during the two-day risk horizon used by OCC in the STANS methodology. OCC's backtesting of its margin models has identified few instances in which this assumption would have, as a result of sudden changes in implied volatility, resulted in margin deposits insufficient to liquidate clearing member accounts without loss. However, as OCC expects to begin clearing more substantial volumes of longer-tenor options, including OTC Options, it believes that implied volatility shocks may become more relevant due to the greater sensitivity of longer-tenor options to implied volatility. OCC therefore proposes to introduce variations in implied volatility in the modeling of all longer-tenor options under STANS. This will be achieved by incorporating, into the set of risk factors whose behavior is included in the econometric models underlying STANS, time series of proportional changes in implied volatilities for a range of tenors and in-the-money and out-of-the-money amounts representative of the dataset provided by OCC's third-party service provider.

A review of individual S&P 500 Index put and call options positions with varying in-the-money amounts and with four to nine years of residual tenor indicates that the inclusion of modeled implied volatilities tends to result in less margin being held against short call positions and more margin being held against short put positions. These results are consistent with what would be expected given the strong negative correlation that exists between changes in implied volatility and market returns.

The description of the Monte Carlo simulations performed within STANS in Rule 601 references revaluations of assets and liabilities in an account under numerous price scenarios for “underlying interests.” In order to accommodate the proposed implied volatility enhancements, OCC is proposing to amend this portion of Rule 601 to provide that the scenarios used may also involve projected levels of other variables influencing prices of cleared contracts and modeled collateral. Accordingly, the references to “underlying interests” are proposed to be deleted.

#### *Valuation Adjustment*

While historically OCC has not cleared a significant volume of longer-tenor options, OCC anticipates that there will be growth in volume of longer-tenor options, including OTC Options, being cleared with three to five year tenors. Longer-tenor options may represent a larger portion of any clearing member’s portfolio in the future, and OCC has therefore identified a need to model anticipated changes in the value of longer-tenor options on a portfolio basis in order to address OCC’s exposure to longer-tenor options that may have illiquid characteristics. OCC proposes to introduce a valuation adjustment into the portfolio net asset value used by STANS based upon the aggregate sensitivity of any longer-tenor options in a portfolio to the overall level of implied volatilities at three years and five years and to the relationship between implied volatility and exercise prices at both the three- and five-year tenors in order to allow for the anticipated market impact of unwinding a portfolio of longer-tenor options, as well as for any differences in the quality of data in OCC’s third party service provider’s dataset, given that month-end data may be subjected to more extensive validation by the service provider than daily data. In order to accommodate the planned valuation adjustment for longer-tenor options, new language would be added to Rule 601 to indicate that the projected portfolio values under the Monte Carlo simulations may be adjusted to account for bid-ask spreads, illiquidity, or other factors.

#### *Clarification of Pricing Model Reference in Rule 601*

Rule 601 currently refers to the use of “options pricing models” to predict the impact of changes in values on positions in OCC-cleared contracts. OCC is proposing to amend this description to reflect that OCC currently uses non-options related models to price certain instruments, such as futures contracts and U.S. Treasury securities. This change is not intended to be substantive and simply clarifies the description in Rule 601.

#### *Effect on Clearing Members*

The proposed rule change will affect clearing members who engage in transactions in longer-tenor options, and indirectly their customers, by enhancing the STANS margin calculation methodology for these options. The STANS enhancements could increase margin requirements with respect to these positions. However, OCC does

not believe that the enhancements will result in significantly increased margin requirements for any particular clearing member, and therefore is not aware of any significant problems that clearing members are likely to have in complying with the proposed rule change.

OCC reviewed the derivatives clearing organization (“DCO”) core principles (“Core Principles”) as set forth in the Commodity Exchange Act. During this review, OCC identified the following Core Principle as potentially being impacted:

**Risk Management.** OCC believes that the proposed enhancements in its margin model for longer-tenor options (i.e., those options with at least three years of residual tenor), and to reflect those enhancements in the description of OCC’s margin model in OCC’s Rules, will allow for more robust risk management of such longer tenor options. OCC’s proposed modifications in implied volatility in the modeling of all longer-tenor options under STANS and the proposed valuation adjustment process discussed above are designed to ensure OCC possesses the ability to manage the risks associated with its status as a derivatives clearing organization.

Additions are indicated by underlining and deletions are bracketed.

#### Opposing Views

No opposing views were expressed related to the rule amendments.

#### Notice of Pending Rule Certification

OCC hereby certifies that notice of this rule filing has been be given to Clearing Members of OCC in compliance with Regulation 40.6(a)(2) by posting a copy of the submission on OCC’s website concurrently with the filing of this submission.

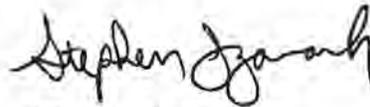
#### Certification

OCC hereby certifies that the attached rule filing complies with the Act and the CFTC’s regulations thereunder.

Melissa Jurgens  
May 30, 2013  
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Should you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Stephen Szarmack". The signature is written in a cursive style with a large, stylized initial 'S'.

Stephen Szarmack

Enclosure  
OCC-2013-08 CFTC

**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

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**Form 19b-4**

**Proposed Rule change and Advance Notice**

**by**

**THE OPTIONS CLEARING CORPORATION**

**Pursuant to Rule 19b-4 under the  
Securities Exchange Act of 1934**

**Item 1. Text of the Proposed Rule Change**

This proposed rule change and advance notice is filed by The Options Clearing Corporation (“OCC” or the “Corporation”) in connection with proposed amendments to its By-Laws and Rules to reflect enhancements in OCC’s System for Theoretical Analysis and Numerical Simulations (“STANS”), as applied to longer-tenor options. Material proposed to be added to OCC’s By-Laws and Rules as currently in effect is underlined and material proposed to be deleted is enclosed in bold brackets.

**THE OPTIONS CLEARING CORPORATION****BY-LAWS**

\* \* \*

**ARTICLE XVII****INDEX OPTIONS AND CERTAIN OTHER CASH-SETTLED OPTIONS**

\* \* \*

**OTC Index Options**

**[THE BY-LAWS IN THIS SECTION (OTC INDEX OPTIONS) ARE INOPERATIVE UNTIL FURTHER NOTICE BY THE CORPORATION]**

Section 6. (a) – (g) [no change]

**RULES**

\* \* \*

**CHAPTER VI  
MARGINS**

\* \* \*

**Margin Requirements**

**Rule 601.** (a) – (b) [no change]

(c) *Margin Requirement Calculation – Accounts Other Than Customers’ Accounts and Firm Non-Lien Accounts.* The margin requirement for an account other than a customers’ account or firm non-lien account shall be the amount of margin assets, expressed in U.S. dollars, that must be held in the account such that the minimum expected liquidating value of the account after

excluding positions covered by deposits in lieu of margin (the “minimum expected liquidating value”), measured at such confidence level as may be selected by the Corporation from time to time, will be not less than zero. To determine the minimum expected liquidating value of the account, the Corporation will revalue the assets and liabilities in the account under a large number of projected price scenarios [for underlying interests] created by large-scale Monte Carlo simulations that preserve both univariate and multivariate historical attributes of all included [underlying interests.] simulated input variables. Such revaluations may include an allowance for costs the Corporation might incur in liquidating all or portions of the account as a result of bid-ask spreads, illiquidity, or other factors. The Corporation will use [option] pricing models to predict the impact of changes in values of underlying interests on positions in cleared contracts and, where applicable as indicated below, margin assets.

In calculating the minimum expected liquidating value of an account, the Corporation may either value margin assets as provided in Rule 604 or may include margin assets consisting of securities in the Monte Carlo simulations on the same basis as cleared contracts and underlying interests, thus recognizing any historical correlations among the values of margin assets, underlying assets and cleared contracts. The margin requirement will always be stated as a fixed amount of cash that would be required in the account to produce a minimum expected liquidating value of zero. However, if margin assets are deposited in the form of securities and are included in the Monte Carlo simulations on the same basis as underlying interests, the quantity of such assets required to satisfy the margin requirement will depend upon the identity of the securities deposited and the identity of the other positions and margin assets in the account.

Notwithstanding any other provision of this Rule 601, the Corporation may fix the margin requirement for any account or any class of cleared contracts at such amount as it deems necessary or appropriate under the circumstances to protect the respective interests of Clearing Members, the Corporation, and the public.

(d) – (e) [no change]

## **Item 2. Procedures of the Self-Regulatory Organization**

The proposed rule change was approved by OCC’s Board of Directors at a meeting held on September 25, 2012. Questions regarding the proposed rule change should be addressed to Stephen Szarmack, Vice President and Associate General Counsel, at (312) 322-4802.

**Item 3. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change**

The purpose of this proposed rule change and advance notice is to provide for enhancements in OCC's margin model for longer-tenor options (*i.e.*, those options with at least three years of residual tenor) and to reflect those enhancements in the description of OCC's margin model in OCC's Rules. OCC also proposes to make changes to the description of OCC's margin model to clarify that description.

On August 30, 2012, OCC submitted a rule change with respect to OCC's proposal to clear certain over-the-counter options on the S&P 500 Index ("OTC Options").<sup>1</sup> The OTC Options Rule Filing, as amended, added a statement appearing before Section 6 of Article XVII of OCC's By-Laws that "THE BY-LAWS IN THIS SECTION (OTC INDEX OPTIONS) ARE INOPERATIVE UNTIL FURTHER NOTICE BY THE CORPORATION" to clarify that OCC would not commence clearing OTC Options until the changes being made to OCC's margin model for longer-tenor options, as provided in this rule change and advance notice, were put in place, notwithstanding whether the OTC Options Rule Filing had already been approved. OCC is now proposing to remove this statement from Section 6, which will allow OCC to commence clearing of OTC Options on the S&P 500 Index.

Additional information concerning OCC's proposal to clear OTC Options is included in the OTC Options Rule Filing. As described in the OTC Options Rule Filing, OCC intends to use its STANS margin system to calculate margin requirements for OTC Options on the same basis as for exchange-listed options cleared by OCC. However, OCC is proposing to

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<sup>1</sup> See Release No. 34-67834; File No. SR-OCC-2012-14 (the "OTC Options Rule Filing"); published September 18, 2012 at 77 Fed. Reg. 57602. SR-OCC-2012-14 replaced SR-OCC-2011-19, which was withdrawn on March 9, 2012. The OTC Options Rule Filing was subsequently amended to add a statement to Section 6 of Article XVII of OCC's By-Laws providing that the OTC Index Options By-Laws were to be inoperative until further notice by OCC. See File No. SR-OCC-2012-14 Amendment No.1.

implement enhancements to its risk models for all longer-tenor options (including OTC Options) in order to better reflect certain risks of longer-tenor options. The changes described herein would apply to all longer-tenor options cleared by OCC and would be implemented before OCC begins clearing OTC Options.

### **Margin Enhancements for Longer-Tenor Options**

The proposed rule change includes daily OTC quotes, variations in implied volatility and valuation adjustments in the modeling of all longer-tenor options under STANS, thereby enhancing OCC's ability to set margin requirements through the use of risk-based models and parameters<sup>2</sup> and encouraging clearing members to have sufficient financial resources to meet their obligations to OCC.<sup>3</sup> The proposed rule change would not affect OCC's safeguarding of securities and funds in its custody or control because though it may change margin requirements in respect of certain longer-tenor options, it does not change the manner in which margin assets are pledged. In addition, the proposed rule change allows OCC to enhance its risk management procedures and controls related to longer-tenor options in accordance with the Commission's clearing agency standards.

OCC calculates clearing-level margin using STANS, which determines the minimum expected liquidating value of each account using a large number of projected price scenarios created by large-scale Monte Carlo simulations. OCC is proposing to implement enhancements to the STANS margin calculation methodology with respect to longer-tenor options and to amend Rule 601 to reflect these enhancements as well as to make certain clarifying changes in the description of STANS in Rule 601. The specific details of the

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<sup>2</sup> 17 CFR 240.17Ad-22(b)(2).

<sup>3</sup> 17 CFR 240.17Ad-22(d)(2).

calculations performed by STANS are maintained in OCC's proprietary procedures for the calculation of margin and coded into the computer systems used by OCC to calculate daily margin requirements.

OCC has proposed at this time to clear only OTC Options on the S&P 500 Index and only such options with tenors of up to five years. However, OCC currently clears FLEX Options with tenors of up to fifteen years. While OCC believes that its current risk management practices are adequate for current clearing activity, OCC proposes to implement risk modeling enhancements with respect to all longer-tenor options.

#### *Daily OTC Indicative Quotes*

In general, the market for listed longer-tenor options is less liquid than the market for other options, with less volume and therefore less price information. In order to supplement OCC's pricing data derived from the listed markets, and improve the price discovery process for longer-tenor options, OCC proposes to include in the daily dataset of market prices used by STANS to value each portfolio indicative daily quotations obtained through a third-party service provider that obtains these quotations through a daily poll of OTC derivatives dealers. A third-party service provider was selected to provide this data in lieu of having the data provided directly by the OTC derivatives dealers in order to avoid unnecessarily duplicating reporting that is already done in the OTC markets.

#### *Variations in Implied Volatility*

To date, the STANS methodology has assumed that implied volatilities of option contracts do not change during the two-day risk horizon used by OCC in the STANS methodology. OCC's backtesting of its margin models has identified few instances in which this assumption would have, as a result of sudden changes in implied volatility, resulted in margin

deposits insufficient to liquidate clearing member accounts without loss. However, as OCC expects to begin clearing more substantial volumes of longer-tenor options, including OTC Options, it believes that implied volatility shocks may become more relevant due to the greater sensitivity of longer-tenor options to implied volatility. OCC therefore proposes to introduce variations in implied volatility in the modeling of all longer-tenor options under STANS. This will be achieved by incorporating, into the set of risk factors whose behavior is included in the econometric models underlying STANS, time series of proportional changes in implied volatilities for a range of tenors and in-the-money and out-of-the-money amounts representative of the dataset provided by OCC's third-party service provider.

A review of individual S&P 500 Index put and call options positions with varying in-the-money amounts and with four to nine years of residual tenor indicates that the inclusion of modeled implied volatilities tends to result in less margin being held against short call positions and more margin being held against short put positions. These results are consistent with what would be expected given the strong negative correlation that exists between changes in implied volatility and market returns.

The description of the Monte Carlo simulations performed within STANS in Rule 601 references revaluations of assets and liabilities in an account under numerous price scenarios for "underlying interests." In order to accommodate the proposed implied volatility enhancements, OCC is proposing to amend this portion of Rule 601 to provide that the scenarios used may also involve projected levels of other variables influencing prices of cleared contracts and modeled collateral. Accordingly, the references to "underlying interests" are proposed to be deleted.

*Valuation Adjustment*

While historically OCC has not cleared a significant volume of longer-tenor options, OCC anticipates that there will be growth in volume of longer-tenor options, including OTC Options, being cleared with three to five year tenors. Longer-tenor options may represent a larger portion of any clearing member's portfolio in the future, and OCC has therefore identified a need to model anticipated changes in the value of longer-tenor options on a portfolio basis in order to address OCC's exposure to longer-tenor options that may have illiquid characteristics. OCC proposes to introduce a valuation adjustment into the portfolio net asset value used by STANS based upon the aggregate sensitivity of any longer-tenor options in a portfolio to the overall level of implied volatilities at three years and five years and to the relationship between implied volatility and exercise prices at both the three- and five-year tenors in order to allow for the anticipated market impact of unwinding a portfolio of longer-tenor options, as well as for any differences in the quality of data in OCC's third party service provider's dataset, given that month-end data may be subjected to more extensive validation by the service provider than daily data. In order to accommodate the planned valuation adjustment for longer-tenor options, new language would be added to Rule 601 to indicate that the projected portfolio values under the Monte Carlo simulations may be adjusted to account for bid-ask spreads, illiquidity, or other factors.

*Clarification of Pricing Model Reference in Rule 601*

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instruments, such as futures contracts and U.S. Treasury securities. This change is not intended to be substantive and simply clarifies the description in Rule 601.

*Effect on Clearing Members*

The proposed rule change will affect clearing members who engage in transactions in longer-tenor options, and indirectly their customers, by enhancing the STANS margin calculation methodology for these options. The STANS enhancements could increase margin requirements with respect to these positions. However, OCC does not believe that the enhancements will result in significantly increased margin requirements for any particular clearing member, and therefore is not aware of any significant problems that clearing members are likely to have in complying with the proposed rule change.

\* \* \*

The proposed rule change is consistent with the purposes and requirements of Section 17A(b)(3)(F) of the Exchange Act (the "Act")<sup>4</sup> and the rules and regulations thereunder, including Rules 17Ad-22(b)(2) and (d)(2) because by providing additional clarity to clearing members and others concerning the current calculation of margin requirements under OCC's Rules, while also enhancing the calculation of margin with respect to longer-tenor options, the proposed modifications would help remove impediments to and perfect the mechanism of a national system for the prompt and accurate clearance and settlement of securities transactions,<sup>5</sup> ensure that OCC's rules are reasonably designed to have participation requirements that are objective and publicly disclosed and permit fair and open access,<sup>6</sup> and provide for a well-

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<sup>4</sup> 15 USC § 78q-1.

<sup>5</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>6</sup> 17 CFR 240.17Ad-22(d)(2).

founded, transparent, and enforceable legal framework.<sup>7</sup> The proposed rule change is not inconsistent with any rules of OCC, including any other rules proposed to be amended.

**Item 4. Self-Regulatory Organization's Statement on Burden on Competition**

OCC does not believe that the proposed rule change would impose a burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.<sup>8</sup> With respect to a burden on competition among clearing agencies, OCC does not believe that the proposed rule change would have any impact because OCC is the only registered clearing agency that issues options and provides central counterparty services to the options markets.

OCC does not believe that enhancing OCC's margin model for longer-tenor options would inhibit access to any of OCC's services or disadvantage or favor any user of OCC's services in relationship to any other such user because the model enhancements would apply equally to all clearing members clearing longer-tenor options. Moreover, OCC believes that the proposed rule change would also promote competition among participants in the longer-tenor options markets. The rule change would enhance OCC's ability to manage risk within OCC's existing structure, and improve OCC's ability to reduce systemic risk to the longer-tenor options market in general as well as reduce inter-dealer counterparty risk in the OTC Options market, allowing for increased participation in this market.

For the foregoing reasons, OCC believes that the proposed rule change is in the public interest, would be consistent with the requirements of the Act applicable to clearing agencies, and would not impose a burden on competition that is unnecessary or inappropriate in

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<sup>7</sup> 17 CFR 240.17Ad-22(d)(1).

<sup>8</sup> 15 U.S.C. 78q-1(b)(3)(I).

furtherance of the purposes of the Act because the changes would enhance OCC's margin methodology for longer-tenor options in ways that help to promote the purposes of the Act and Rule 17Ad-22 thereunder as described above.

**Item 5. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others**

Written comments were not and are not intended to be solicited with respect to the proposed rule change, and none have been received.

**Item 6. Extension of Time Period for Commission Action**

OCC does not consent to an extension of the time period specified in Section 19(b)(2) of the Act.

**Item 7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2) or Section 19(b)(7)(D)**

Not applicable.

**Item 8. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission**

Not applicable.

**Item 9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act**

Not applicable.

**Item 10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act**

OCC is filing this proposed rule change as an “advance notice” pursuant to Section 806(e)(2) of the Payment, Clearing, and Settlement Supervision Act of 2010 because the proposed change could be deemed to materially affect the nature or level of risks presented by OCC. However, OCC believes that the Rule changes and changes in OCC’s system for calculating margin on longer-tenor options will represent enhancements to OCC’s ability to manage the risks presented to it, particularly as OCC begins clearing OTC Options.

OTC Options are nearly identical to listed FLEX options on the S&P 500 that OCC has cleared for many years. OTC Options have the same degree of customization as FLEX options except that OTC Options are limited to a maximum tenor of five years whereas FLEX options can have tenors of up to fifteen years. In this respect, OTC Options pose less of a challenge from a risk management perspective than do FLEX options. However, OCC believes, based on activity in the existing OTC markets for uncleared, bilateral options, that there may be greater open interest in OTC Options with tenors exceeding three years as compared to FLEX options, in which open interest is more concentrated in shorter term options. In addition, it is inherent in the nature of the OTC option markets that there are no market makers with affirmative duties to create liquidity by standing ready to buy and sell OTC Options in response to market interest as in the listed options markets, including the FLEX options market.

In order to address the potentially greater open interest in longer-tenor options, OCC is proposing to supplement its existing risk management procedures by enhancing its STANS margining system by:

(i) including in the daily dataset of market prices used by STANS to value each portfolio indicative daily quotations obtained through a third-party service provider that obtains these quotations through a daily poll of OTC derivatives dealers;

(ii) incorporating, into the set of risk factors whose behavior is included in the econometric models underlying STANS, time series of proportional changes in implied volatilities, for a range of tenors and in-the-money and out-of-the-money amounts representative of the foregoing dataset; and

(iii) introducing a valuation adjustment into the portfolio net asset value used by STANS, based upon the aggregate sensitivity of any longer-tenor options in a portfolio to the overall level of implied volatilities at three years and five years and to the relationship between implied volatility and exercise prices at both the three- and five-year tenors in order to allow for the market impact of unwinding a portfolio of longer-tenor options, as well as for any differences in the quality of data provided by OCC's third party service provider's dataset, given that month-end data may be subjected to more extensive validation by the service provider than daily data.

These proposed changes are described in more detail in Item 3 above. As noted above, OCC will not commence clearing of OTC Options unless and until the Commission has approved the modeling enhancements described herein.

**Item 11.**     Exhibits

Exhibit 1A     Completed notice of the advance notice for publication in the  
Federal Register.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, The Options Clearing Corporation has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

**THE OPTIONS CLEARING CORPORATION**

By:   
\_\_\_\_\_  
**Stephen Szarmack**  
**Vice President and**  
**Associate General Counsel**

**EXHIBIT 1A**  
**SECURITIES AND EXCHANGE COMMISSION**  
**(Release No. 34-\_\_\_\_\_ ; File No. SR-OCC-2013-08**

**May 30, 2013**

Clearing Agencies; The Options Clearing Corporation; Proposed Rule Change and Advance Notice in Connection with Proposed Amendments to its By-Laws and Rules to Reflect Enhancements in OCC's System for Theoretical Analysis and Numerical Simulations as Applied to Longer-Tenor Options

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Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934<sup>1</sup> and Rule 19b-4<sup>2</sup> thereunder, notice is hereby given that on May 30, 2013, The Options Clearing Corporation ("OCC") filed with the Securities and Exchange Commission the proposed rule change and advance notice as described in Items I, II and III below, which Items have been prepared by the clearing agency. The Commission is publishing this notice to solicit comments on the proposed rule change and advance notice from interested persons.

**I. Clearing Agency's Statement of the Terms of Substance of the Proposed Rule Change and Advanced Notice**

The proposed rule change and advance notice would provide for enhancements in OCC's margin model for longer-tenor options (*i.e.*, those options with at least three years of residual

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

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

tenor) and to reflect those enhancements in the description of OCC's margin model in OCC's Rules.

**II. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change and Advance Notice**

In its filing with the Commission, OCC included statements concerning the purpose of and basis for the proposed rule change and advance notice and discussed any comments it received on the proposed rule change and advance notice. The text of these statements may be examined at the places specified in Item IV below. OCC 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**

The purpose of this proposed rule change and advance notice is to provide for enhancements in OCC's margin model for longer-tenor options (*i.e.*, those options with at least three years of residual tenor) and to reflect those enhancements in the description of OCC's margin model in OCC's Rules. OCC also proposes to make changes to the description of OCC's margin model to clarify that description.

On August 30, 2012, OCC submitted a rule change with respect to OCC's proposal to clear certain over-the-counter options on the S&P 500 Index ("OTC Options").<sup>3</sup> The

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<sup>3</sup> See Release No. 34-67834; File No. SR-OCC-2012-14 (the "OTC Options Rule Filing"); published September 18, 2012 at 77 Fed. Reg. 57602. SR-OCC-2012-14 replaced SR-OCC-2011-19, which was withdrawn on March 9, 2012. The OTC Options Rule Filing was subsequently amended to add a statement to Section 6 of Article XVII of

OTC Options Rule Filing, as amended, added a statement appearing before Section 6 of Article XVII of OCC's By-Laws that "THE BY-LAWS IN THIS SECTION (OTC INDEX OPTIONS) ARE INOPERATIVE UNTIL FURTHER NOTICE BY THE CORPORATION" to clarify that OCC would not commence clearing OTC Options until the changes being made to OCC's margin model for longer-tenor options, as provided in this rule change and advance notice, were put in place, notwithstanding whether the OTC Options Rule Filing had already been approved. OCC is now proposing to remove this statement from Section 6, which will allow OCC to commence clearing of OTC Options on the S&P 500 Index.

Additional information concerning OCC's proposal to clear OTC Options is included in the OTC Options Rule Filing. As described in the OTC Options Rule Filing, OCC intends to use its STANS margin system to calculate margin requirements for OTC Options on the same basis as for exchange-listed options cleared by OCC. However, OCC is proposing to implement enhancements to its risk models for all longer-tenor options (including OTC Options) in order to better reflect certain risks of longer-tenor options. The changes described herein would apply to all longer-tenor options cleared by OCC and would be implemented before OCC begins clearing OTC Options.

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OCC's By-Laws providing that the OTC Index Options By-Laws were to be inoperative until further notice by OCC. See File No. SR-OCC-2012-14 Amendment No.1.

### **Margin Enhancements for Longer-Tenor Options**

The proposed rule change includes daily OTC quotes, variations in implied volatility and valuation adjustments in the modeling of all longer-tenor options under STANS, thereby enhancing OCC's ability to set margin requirements through the use of risk-based models and parameters<sup>4</sup> and encouraging clearing members to have sufficient financial resources to meet their obligations to OCC.<sup>5</sup> The proposed rule change would not affect OCC's safeguarding of securities and funds in its custody or control because though it may change margin requirements in respect of certain longer-tenor options, it does not change the manner in which margin assets are pledged. In addition, the proposed rule change allows OCC to enhance its risk management procedures and controls related to longer-tenor options in accordance with the Commission's clearing agency standards.

OCC calculates clearing-level margin using STANS, which determines the minimum expected liquidating value of each account using a large number of projected price scenarios created by large-scale Monte Carlo simulations. OCC is proposing to implement enhancements to the STANS margin calculation methodology with respect to longer-tenor options and to amend Rule 601 to reflect these enhancements as well as to make certain clarifying changes in the description of STANS in Rule 601. The specific details of the

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<sup>4</sup> 17 CFR 240.17Ad-22(b)(2).

<sup>5</sup> 17 CFR 240.17Ad-22(d)(2).

calculations performed by STANS are maintained in OCC's proprietary procedures for the calculation of margin and coded into the computer systems used by OCC to calculate daily margin requirements.

OCC has proposed at this time to clear only OTC Options on the S&P 500 index and only such options with tenors of up to five years. However, OCC currently clears FLEX Options with tenors of up to fifteen years. While OCC believes that its current risk management practices are adequate for current clearing activity, OCC proposes to implement risk modeling enhancements with respect to all longer-tenor options.

*Daily OTC Indicative Quotes*

In general, the market for listed longer-tenor options is less liquid than the market for other options, with less volume and therefore less price information. In order to supplement OCC's pricing data derived from the listed markets, and improve the price discovery process for longer-tenor options, OCC proposes to include in the daily dataset of market prices used by STANS to value each portfolio indicative daily quotations obtained through a third-party service provider that obtains these quotations through a daily poll of OTC derivatives dealers. A third-party service provider was selected to provide this data in lieu of having the data provided directly by the OTC derivatives dealers in order to avoid unnecessarily duplicating reporting that is already done in the OTC markets.

*Variations in Implied Volatility*

To date, the STANS methodology has assumed that implied volatilities of option contracts do not change during the two-day risk horizon used by OCC in the STANS methodology. OCC's backtesting of its margin models has identified few instances in which this assumption would have, as a result of sudden changes in implied volatility, resulted in margin deposits insufficient to liquidate clearing member accounts without loss. However, as OCC expects to begin clearing more substantial volumes of longer-tenor options, including OTC Options, it believes that implied volatility shocks may become more relevant due to the greater sensitivity of longer-tenor options to implied volatility. OCC therefore proposes to introduce variations in implied volatility in the modeling of all longer-tenor options under STANS. This will be achieved by incorporating, into the set of risk factors whose behavior is included in the econometric models underlying STANS, time series of proportional changes in implied volatilities for a range of tenors and in-the-money and out-of-the-money amounts representative of the dataset provided by OCC's third-party service provider.

A review of individual S&P 500 Index put and call options positions with varying in-the-money amounts and with four to nine years of residual tenor indicates that the inclusion of modeled implied volatilities tends to result in less margin being held against short call positions and more margin being held against short put positions. These results are consistent with what would be expected given the strong negative correlation that exists between changes in implied volatility and market returns.

The description of the Monte Carlo simulations performed within STANS in Rule 601 references revaluations of assets and liabilities in an account under numerous price scenarios for “underlying interests.” In order to accommodate the proposed implied volatility enhancements, OCC is proposing to amend this portion of Rule 601 to provide that the scenarios used may also involve projected levels of other variables influencing prices of cleared contracts and modeled collateral. Accordingly, the references to “underlying interests” are proposed to be deleted.

#### *Valuation Adjustment*

While historically OCC has not cleared a significant volume of longer-tenor options, OCC anticipates that there will be growth in volume of longer-tenor options, including OTC Options, being cleared with three to five year tenors. Longer-tenor options may represent a larger portion of any clearing member's portfolio in the future, and OCC has therefore identified a need to model anticipated changes in the value of longer-tenor options on a portfolio basis in order to address OCC's exposure to longer-tenor options that may have illiquid characteristics. OCC proposes to introduce a valuation adjustment into the portfolio net asset value used by STANS based upon the aggregate sensitivity of any longer-tenor options in a portfolio to the overall level of implied volatilities at three years and five years and to the relationship between implied volatility and exercise prices at both the three- and five-year tenors in order to allow for the anticipated market impact of unwinding a portfolio of longer-tenor options, as well as for any differences in the quality of data in OCC's third party service provider's dataset, given that

month-end data may be subjected to more extensive validation by the service provider than daily data. In order to accommodate the planned valuation adjustment for longer-tenor options, new language would be added to Rule 601 to indicate that the projected portfolio values under the Monte Carlo simulations may be adjusted to account for bid-ask spreads, illiquidity, or other factors.

*Clarification of Pricing Model Reference in Rule 601*

Rule 601 currently refers to the use of “options pricing models” to predict the impact of changes in values on positions in OCC-cleared contracts. OCC is proposing to amend this description to reflect that OCC currently uses non-options related models to price certain instruments, such as futures contracts and U.S. Treasury securities. This change is not intended to be substantive and simply clarifies the description in Rule 601.

*Effect on Clearing Members*

The proposed rule change will affect clearing members who engage in transactions in longer-tenor options, and indirectly their customers, by enhancing the STANS margin calculation methodology for these options. The STANS enhancements could increase margin requirements with respect to these positions. However, OCC does not believe that the enhancements will result in significantly increased margin requirements for any particular clearing member, and therefore is not aware of any significant problems that clearing members are likely to have in complying with the proposed rule change.

The proposed rule change is consistent with the purposes and requirements of Section 17A(b)(3)(F) of the Exchange Act (the “Act”)<sup>6</sup> and the rules and regulations thereunder, including Rules 17Ad-22(b)(2) and (d)(2) because by providing additional clarity to clearing members and others concerning the current calculation of margin requirements under OCC’s Rules, while also enhancing the calculation of margin with respect to longer-tenor options, the proposed modifications would help remove impediments to and perfect the mechanism of a national system for the prompt and accurate clearance and settlement of securities transactions,<sup>7</sup> ensure that OCC’s rules are reasonably designed to have participation requirements that are objective and publicly disclosed and permit fair and open access,<sup>8</sup> and provide for a well-founded, transparent, and enforceable legal framework.<sup>9</sup> The proposed rule change is not inconsistent with any rules of OCC, including any other rules proposed to be amended.

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

OCC does not believe that the proposed rule change would impose a burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. With respect to a burden on competition among clearing agencies, OCC does not believe that the proposed rule change would have any impact because OCC is the only registered clearing agency

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<sup>6</sup> 15 USC § 78q-1.

<sup>7</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>8</sup> 17 CFR 240.17Ad-22(d)(2).

<sup>9</sup> 17 CFR 240.17Ad-22(d)(1).

that issues options and provides central counterparty services to the options markets.

OCC does not believe that enhancing OCC's margin model for longer-tenor options would inhibit access to any of OCC's services or disadvantage or favor any user of OCC's services in relationship to any other such user because the model enhancements would apply equally to all clearing members clearing longer-tenor options. Moreover, OCC believes that the proposed rule change would also promote competition among participants in the longer-tenor options markets. The rule change would enhance OCC's ability to manage risk within OCC's existing structure, and improve OCC's ability to reduce systemic risk to the longer-tenor options market in general as well as reduce inter-dealer counterparty risk in the OTC Options market, allowing for increased participation in this market.

For the foregoing reasons, OCC believes that the proposed rule change is in the public interest, would be consistent with the requirements of the Act applicable to clearing agencies, and would not impose a burden on competition that is unnecessary or inappropriate in furtherance of the purposes of the Act because the changes would enhance OCC's margin methodology for longer-tenor options in ways that help to promote the purposes of the Act and Rule 17Ad-22 thereunder as described above.

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

Written comments were not and are not intended to be solicited with respect to the proposed rule change and none have been received.

**III. Date of Effectiveness of the Proposed Rule Change and Advance Notice 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.

The clearing agency shall post notice on its website of any clearing requirement that is implemented.

The proposed change may be implemented if the Commission does not object to the proposed change within 60 days of the later of (i) the date that the proposed change was filed with the Commission or (ii) the date that any additional information requested by the Commission is received. The clearing agency shall not implement the proposed change if the Commission has any objection to the proposed change.

The Commission may extend period for review by an additional 60 days if the proposed change raises novel or complex issues, subject to the Commission or the Board of Governors of the Federal Reserve System providing the clearing agency with prompt written notice of the extension. A proposed change may be implemented in less than 60 days from the date the advance notice is filed, or the date further information requested by the Commission is received, if the Commission notifies the clearing agency in writing that it does not object to the proposed change and authorizes the clearing agency to implement the proposed change on an earlier date, subject to any conditions imposed by the Commission.

The clearing agency shall post notice on its website of proposed changes that are Implemented.

The proposal shall not take effect until all regulatory actions required with respect to the proposal are completed.

#### **IV. Solicitation of Comments**

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change and advance notice 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-OCC-2013-08 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-OCC-2013-08. 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 and advance notice that are filed with the Commission, and all written communications relating to the proposed rule change or advance notice 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 am and 3:00 pm. Copies of the filing also will be available for inspection and copying at (<http://www.theocc.com/about/publications/bylaws.jsp>).

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-OCC-

2013-08 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

By the Commission .

**Kevin M. O'Neil**  
Deputy Secretary

Action as set forth recommended herein  
APPROVED pursuant to authority delegated by  
the Commission under Public Law 87-592.  
For: Division of Trading and Markets

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_