SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–74966; File No. SR–OCC–2015–010]

Self-Regulatory Organizations; The Options Clearing Corporation; Notice of Filing of a Proposed Rule Change Concerning the Implementation of New Risk Models in Order To Support the Clearance and Settlement of Asian-Style Flexibly Structured Options and Flexibly Structured Cliquet Options

May 14, 2015.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on May 1, 2015, The Options Clearing Corporation ("OCC") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared primarily by OCC. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Clearing Agency's Statement of the Terms of Substance of the Proposed Rule Change

This proposed rule change by OCC concerns the implementation of new risk models in order to support the clearance and settlement of Asian-style flexibly structured options ("Asian Options") and flexibly structured Cliquet options ("Cliquet Options").

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

In its filing with the Commission, OCC included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. OCC has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of these statements.

A. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this proposed rule change is to describe the risk models that OCC proposes to add to its STANS methodology in order to support the clearance and settlement of Asian Options and Cliquet Options.

Background

OCC currently clears flexibly structured options on various securities indices ("Current Index Flex Options").[3] Current Index Flex Options permit the buyer and seller to negotiate certain variable terms, pursuant to exchange rules,[4] in order to customize such terms. For example, the parties may select from a variety of underlying indices, pick a strike price and expiration date as well as pick the exercise-style of the option—*i.e.*, American or European exercise.[5] Current Index Flex Options are cash settled options for which the exercise settlement amount is determined based entirely on the strike price of a given option and the current underlying interest value on the day of exercise, in the case of American style Current Index Flex Options, or final day of trading, in the case of European style Current Index Flex Options. For risk modeling purposes, OCC computes clearing member margin requirements on Current Index Flex Options through pricing models within its STANS[6] methodology that derive prices from the implied volatility of index options with the same tenor, strike price and underlying interest.

Asian Options are European style options that use an "Asian-style" methodology for determining the exercise settlement amount of an option, which is the difference between the aggregate exercise price and the aggregate current underlying interest value, which is based on the average of twelve monthly price "observations." Traders of Asian Options would select an observation date as well as an expiration date for the contract approximately twelve months following the contract's creation.[7] Consequently, all Asian Options for which OCC would provide clearance and settlement services would have a term of approximately one year.[8]

Cliquet Options are European style options that use a cliquet[9] method for determining the exercise settlement amount of the option, which is the greater of: (i) Zero (*i.e.*, the underlying index had negative returns during the option's tenor); and, (ii) the difference between the aggregate exercise price and the aggregate current underlying interest value, which is based on the sum of the Capped Returns (defined below) of the underlying index on 12 predetermined "observation dates" (each an "Observation Date," and the computed value an "Observation"). The parties to a Cliquet Option would designate a set of Observation Dates for each contract as well as an expiration date.[10] On each Observation Date, the exchange on which the Cliquet Options is listed would determine the actual return of the underlying index from observation period-to-observation period, which would be compared to the observation cap, which is an amount designated the parties to the Cliquet Option.[11] The lesser of the actual observation period-to-observation period return or the observation cap would be the Capped Return for a given Observation Date.[12]

Both Asian Options and Cliquet Options would be only available in European style exercises, and would be subject to OCC's expiration exercise procedures set forth in OCC Rule 805, as supplemented by OCC Rule 1804. In addition, OCC would initially clear Asian Options and Cliquet Options on the S&P 500 Index, Nasdaq100 Index, Russell 2000 Index and the Dow Jones Industrial Average Index and may clear Asian Options and Cliquet Options on other indices in the future.

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[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] OCC clears Current Index Flex Options on the S&P 500® Index, S&P 100® Index, Nasdaq 100® Index and the Russell 2000® Index, among other underlying indexes.

[4] *See* OCC By-Laws Article 1, Section 1(F)(5).

[5] Options with an American style exercise may be exercised at any time prior to, and including, expiration. Options with a European style exercise may only be exercised at expiration.

[6] *See* http://www.theocc.com/risk-management/margins/ for a description of OCC's margin methodology. *See also* OCC Rule 601.

[7] Expiration dates must be within 50 to 53 calendar weeks from the date of listing.

[8] If the expiration date precedes the observation date in the final month, then the final "observation" would be the current underlying interest value on expiration date and not the observation date. If one of the observation dates falls on a weekend or holiday, the value used would be from the previous business day.

[9] Cliquet style settlement provides for payout based on the (positive) sum of "capped" returns of an index on pre-determined dates over a specified period of time.

[10] Observations Dates would generally be a given date each month for the twelve months preceding the expiration date, with the last Observation Date being the expiration date. If the Observation Date chosen by the parties to a Cliquet Option precedes the expiration date then there would be two Observation Dates in the final month (*i.e.*, the expiration date would always be an Observation Date) and ten other Observation Dates; one date in each of the ten months preceding the expiration month that would coincide with the Observation Date that was chosen by the parties to a Cliquet Option (not the expiration date). Expiration dates must be within 50 to 53 calendar weeks from the date of listing. If one of the Observation Dates falls on a weekend or holiday, the previous business day would be deemed to be the Observation Date.

[11] *Id.*

[12] For example, if the actual return of the underlying index was 1.75% and the designated capped return for a Cliquet Option was 2%, the 1.75% value would be included (and not the 2%) as the value for the Observation Date. Using this same example, if the actual return of the underlying index was 3.30%, the 2% value would be included (and not the 3.30%) as the value for the Observation Date.

New Risk Models

OCC would compute clearing member margin requirements on Asian Options and Cliquet Options using its STANS methodology. Since STANS uses option prices to compute clearing member margin charges, the risk model changes necessary to accommodate the clearance and settlement of Asian Options and Cliquet Options concern the addition of appropriate price models for Asian Options and Cliquet Options. Both Asian Options and Cliquet Options are index options, and while OCC computes the price of Current Index Flex Options on indices through standard pricing models (*i.e.*, the Black-Scholes pricing model) that consider: (i) The value of the option's underlying index, (ii) the implied volatility of an option's underlying index, (iii) time until expiration, (iv) risk-free interest rate, and (v) the strike price of the option, certain modifications to OCC's existing pricing models for Current Index Flex Options are necessary in order to account for certain features of Asian Options and Cliquet Options, as described below, so that clearing member margin on such options may be computed through STANS. Accordingly, OCC proposes to implement the new pricing models described below in order to compute prices for Asian Options and Cliquet Options thereby allowing for the computation of clearing member margin requirements for such options through the STANS methodology.

Asian Options

Asian Options differ from the Current Index Flex Options currently cleared by OCC due to the option's exercise settlement amount being a function of the arithmetic average of the underlying index on certain observation dates. (In comparison, and in the case Current Index Flex Options, the exercise settlement amount of the option is a function of the value of underlying index of a given option on the exercise date or expiration date, as applicable.) Based on this phenomenon, OCC proposes to add a new pricing model for Asian Options that would be a shifted lognormal model [13] to accommodate the fact that Asian Options would have an arithmetic average value of the underlying index within the final exercise settlement amount calculation. The shifted lognormal model would account for the fact that the current underlying interest value on the expiration date of an Asian Option is based on an arithmetic average of prices, and not the value of the underlying index on the option's expiration date, which introduces non-normality into the probability distribution of contract payoffs.

With respect to the Asian Option shifted lognormal pricing model, OCC proposes to utilize a modified Black-Scholes pricing model with a shift parameter that employs the first three statistical "moments." In accordance with such model, the first moment is the expected value of an Asian Option's value based on the option's implied volatility. The second moment accounts for the statistical volatility of the option's value. The third moment accounts for the statistical skewness of the option's value. The moments are intended to account for variability in the arithmetic average value of an Asian Option's underlying index. The shifted lognormal distribution (*i.e.*, the lognormal probability distribution derived using the first through third moments above) is then priced through the standard Black-Scholes equation.[14] The shift parameters are then adjusted out of the Black-Scholes price in order to derive a price for a given Asian Option that is appropriate to be utilized within the STANS methodology for the purposes of computing clearing member margin on Asian Options.

Cliquet Options

Similar to Asian Options, the price of a given Cliquet Options is based on monthly Observations of an underlying index. While a shifted lognormal model is an appropriate pricing model for Asian Options, the capped return feature of Cliquet Options makes the numerical solution to the Black-Scholes Partial Differential Equation [15] the appropriate pricing model for Cliquet Options.[16] OCC therefore proposes to add a Cliquet Option pricing model to its STANS methodology that would compute the numerical solution to the Black-Scholes Partial Differential Equation. Such a solution would provide OCC with the price of a given Cliquet Option that would be utilized within the STANS methodology for the purposes of computing clearing member margin requirements.

With respect to the pricing of a given Cliquet Option, and based on the capped return feature of Cliquet Options, OCC would identify the known implied volatility skew of standard options with the same underlying interest, a similar tenor and a similar amount of forward moneyness [17] of the given Cliquet Option. OCC's calculation of forward moneyness would include an adjustment to account for any known Observations of the underlying interest for a given Cliquet Option. The known implied volatility skew would subsequently be utilized within the Black-Scholes Partial Differential Equation so that OCC would be able to derive the price of a given Cliquet Option, which would then be utilized within the STANS methodology for purposes of computing clearing member margin requirements on a Cliquet Options.

2. Statutory Basis

OCC believes that the proposed rule change is consistent with Section 17A(b)(3)(F) of the Act [18] because it would assure the safeguarding of securities and funds which are in the custody and control of OCC. OCC believes that the proposed rule change assures the safeguarding of securities and funds in the custody and control of OCC because it would permit OCC to modify its risk models to accommodate the manner in which the exercise settlement amount for Asian Options and Cliquet Options is determined thereby permitting OCC to risk manage Asian Options and Cliquet Options through appropriate risk models. Such risk models would reduce the risk that clearing member margin assets would be insufficient should OCC need to use such assets to close-out the positions of a defaulted clearing member. In addition, the proposed rule change is consistent with Rule 17Ad–22(b)(2)

[13] *See* Andreasen, J., "The pricing of discretely sampled Asian and lookback options: A change of numeraire approach," Journal of Computational Finance, September 2000. *See also* Brigo, D., Mercurio, F., Rapidsarda, F., Scotti, R., "Approximated moment- matching dynamics for basket-options simulation," EFMA Lugano meetings, November 2001. *See also* Haug, E.G. and Margrabe, W., "Asian Pyramid Power," Wilmott Magazine, March 2003.

[14] In connection with using the standard Black-Sholes equation, OCC would also compute each of the three moments using a random shifted lognormal variable.

[15] The differential equation model incorporates boundary conditions that ensure that the value of a given Cliquet Option is consistent throughout the equation. (Boundary conditions are necessary in order to solve differential equations.)

[16] *See* Andreasen, J., "The pricing of discretely sampled Asian and lookback options: A change of numeraire approach." Journal of Computational Finance (2000). *See also* Bernard, C., & Li, W.V., "Pricing and Hedging of Cliquet Options and Locally Capped Contracts." SIAM Journal on Financial Mathematics, 353–371 (2013). *See also* Hagan, P.S., Kumar, D., & Lesniewski, A.S.,

"Managing Smile Risk." Wilmott Magazine, 84–108 (2002). *See also* Hull, John C., "Options Futures and other Derivatives." McGraw Hill (2000). *See also* Kjaer, M., "Fast pricing of cliquet options with global floor." Journal of Derivatives, 14(2), 47–60 (2006).

[17] Forward moneyness is the ratio of the strike to the current value of the implied forward for the index.

[18] 15 U.S.C. 78q–1(b)(3)(F).

under the Act,[19] because the proposed rule change because [sic] would allow OCC to implement risk-based models and parameters, as described above, to set margin requirements for clearing members who trade Asian Options and Cliquet Options. The proposed rule change is not inconsistent with any existing OCC By-Laws or Rules, including any rules proposed to be amended.

B. Clearing Agency's Statement on Burden on Competition

OCC does not believe that the proposed rule change would impose a burden on competition.[20] As described above, the proposed rule change concerns implementation of certain pricing models in to the STANS methodology in order to facilitate the margining of clearing member positions in Asian Options and Cliquet Options. The proposed rule change would uniformly affect all clearing members who trade Asian Options and Cliquet Options and therefore OCC does not believe that proposed rule change would impose a burden on competition.

C. Clearing Agency's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

Written comments on the proposed rule change 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 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 the 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 email to *rule-comments@sec.gov*. Please include File Number SR–OCC–2015–010 on the subject line.

Paper Comments

• Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–OCC–2015–010. This file number should be included on the subject line if email 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 Web site (*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 Web site 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 such filings also will be available for inspection and copying at the principal office of OCC and on OCC's Web site at *http://www.theocc.com/components/docs/legal/rules_and_bylaws/sr_occ_15_010.pdf*.

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–2015–010 and should be submitted on or before June 12, 2015.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[21]

Robert W. Errett,

Deputy Secretary.

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SECURITIES AND EXCHANGE COMMISSION

[Release Nos. 33–9774; 34–74984; File No. 265–27]

SEC Advisory Committee on Small and Emerging Companies

AGENCY: Securities and Exchange Commission.

ACTION: Notice of meeting.

SUMMARY: The Securities and Exchange Commission Advisory Committee on Small and Emerging Companies is providing notice that it will hold a public meeting on Wednesday, June 3, 2015, in Multi-Purpose Room LL–006 at the Commission's headquarters, 100 F Street NE., Washington, DC. The meeting will begin at 9:30 a.m. (EST) and will be open to the public. The meeting will be webcast on the Commission's Web site at *www.sec.gov.* Persons needing special accommodations to take part because of a disability should notify the contact person listed below. The public is invited to submit written statements to the Committee. The agenda for the meeting includes matters relating to rules and regulations affecting small and emerging companies under the federal securities laws. Notice of this meeting is less than fifteen days prior to the meeting due to an administrative delay.

DATES: The public meeting will be held on Wednesday, June 3, 2015. Written statements should be received on or before June 1, 2015.

ADDRESSES: The meeting will be held at the Commission's headquarters, 100 F Street NE., Washington, DC. Written statements may be submitted by any of the following methods:

Electronic Statements

• Use the Commission's Internet submission form (*http://www.sec.gov/spotlight/acsec-spotlight.shtml*); or

• Send an email message to *rule-comments@sec.gov.* Please include File Number 265–27 on the subject line; or

Paper Statements

• Send paper statements in triplicate to Brent J. Fields, Federal Advisory Committee Management Officer, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090.

All submissions should refer to File No. 265–27. This file number should be included on the subject line if email is used. To help us process and review your statement more efficiently, please use only one method. The Commission will post all statements on the Advisory

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[19] 17 CFR 240.17Ad–22(b)(2).

[20] 15 U.S.C. 78q–1(b)(3)(I).

[21] 17 CFR 200.30–3(a)(12).