



August 6, 2018

**VIA ELECTRONIC MAIL**

Christopher J. Kirkpatrick  
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-2018-008 Rule Certification**

Dear Secretary Kirkpatrick:

Pursuant to Section 5c(c)(1) of the Commodity Exchange Act, as amended (“Act”), and Commodity Futures Trading Commission (“CFTC”) Regulation 40.6, enclosed is a copy of the above-referenced rule filing submitted by The Options Clearing Corporation (“OCC”). OCC intends to implement the proposed rules on September 1, 2018, which would coincide with the September 2018 sizing of the Clearing Fund; provided that this date is at least 10 business days following receipt of the rule filing by the CFTC and the proposed rule is approved by the Securities and Exchange Commission (“SEC”) or otherwise becomes effective under the Securities Exchange Act of 1934 (“Exchange Act”). This rule, as subsequently amended, has been submitted to the SEC under the Exchange Act.<sup>1</sup>

OCC has requested confidential treatment for Exhibits 3A and 3B to SR-OCC-2018-008, which are contained in pages 178-288 of the enclosed initial filing, and Exhibits 5C-5I to SR-OCC-2018-008, which are contained in pages 323-411 of the enclosed initial filing.

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

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<sup>1</sup> Attached please find OCC’s submission to the SEC, including subsequently filed Amendments No. 1 and 2. Amendment No. 1 corrects file formatting errors in Exhibits 5A and 5B to the initial filing. Amendment No. 2 makes a number of clarifying and conforming changes in connection with the initial filing. Specifically, the proposed amendment would (1) revise Article VI, Section 27 of the OCC By-Laws to reflect the relocation of OCC’s Clearing Fund-related By-Law provisions into Chapter X of OCC’s Rules, (2) add an Interpretation and Policy to proposed Rule 1001 to clarify the applicability of the 5% month-over-month limitation in the reduction of Clearing Fund size to the first resizing of the Clearing Fund under the newly proposed methodology, and (3) clarify the implementation date of the proposed changes in the filing.

### Explanation and Analysis

The proposed change by OCC concerns proposed changes to OCC's By-Laws and Rules, the formalization of a substantially new Clearing Fund Methodology Policy ("Policy"), and the adoption of a document describing OCC's new Clearing Fund and stress testing methodology ("Methodology Description"). The proposed changes are primarily designed to enhance OCC's overall resiliency, particularly with respect to the level of OCC's pre-funded financial resources. Specifically, the proposed changes would:

(1) reorganize, restate, and consolidate the provisions of OCC's By-Laws and Rules relating to the Clearing Fund into a newly revised Chapter X of OCC's Rules;

(2) modify the coverage level of OCC's Clearing Fund sizing requirement to protect OCC against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions (i.e., adopt a "Cover 2 Standard" for sizing the Clearing Fund);

(3) adopt a new risk tolerance for OCC to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period;

(4) adopt a new Clearing Fund and stress testing methodology, which would be underpinned by a new scenario-based one-factor risk model stress testing approach, as detailed in the newly proposed Policy and Methodology Description;

(5) document governance, monitoring, and review processes related to Clearing Fund and stress testing;

(6) provide for certain anti-procyclical limitations on the reduction in Clearing Fund size from month to month;

(7) increase the minimum Clearing Fund contribution requirement for Clearing Members to \$500,000;

(8) modify OCC's allocation weighting methodology for Clearing Fund contributions;

(9) reduce from five to two business days the timeframe within which Clearing Members are required to fund Clearing Fund deficits due to monthly or intra-month resizing or due to Rule amendments;

(10) provide additional clarity in OCC's Rules regarding certain anti-procyclicality measures in OCC's margin model; and

(11) make a number of other non-substantive clarifying, conforming, and organizational

changes to OCC's By-Laws, Rules, Collateral Risk Management Policy, Default Management Policy, and filed procedures, including retiring OCC's existing Clearing Fund Intra-Month Re-sizing Procedure, Financial Resources Monitoring and Call Procedure ("FRMC Procedure"), and Monthly Clearing Fund Sizing Procedure, as these procedures would no longer be relevant to OCC's proposed Clearing Fund and stress testing methodology and would be replaced by the proposed Rules, Policy, and Methodology Description described herein.

The proposed amendments to OCC's By-Laws and Rules can be found in Exhibits 5A and 5B, respectively. Material proposed to be added to OCC's By-Laws and Rules as currently in effect is marked by underlining, and material proposed to be deleted is marked in strikethrough text.<sup>2</sup> As proposed, existing Chapter X would be deleted and replaced with new Chapter X in its entirety, as set forth in Exhibit 5B.

The proposed Policy and Methodology Description have been submitted in Exhibits 5C and 5D, respectively, and have been submitted without marking to facilitate review and readability of the documents as they are being submitted in their entirety as new rule text.<sup>3</sup>

The Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure can be found in Exhibits 5E, 5F and 5G, respectively, with the deletion (or retirement) of these procedures indicated by strikethrough text.

The proposed changes to OCC's Collateral Risk Management Policy and Default Management Policy can be found in Exhibits 5H and 5I, respectively. Material proposed to be added to the policies as currently in effect is marked by underlining, and material proposed to be deleted is marked in strikethrough text.

All terms with initial capitalization not defined herein have the same meaning as set forth in OCC's By-Laws and Rules.<sup>4</sup>

## **Overview of OCC's Existing Clearing Fund Methodology**

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<sup>2</sup> OCC recently proposed changes to Article VIII of its By-Laws in connection with proposed changes related to enhanced and new tools for recovery scenarios. See Securities Exchange Act Release No. 82351 (December 19, 2017), 82 FR 61107 (December 26, 2017) (SR-OCC-2017-020) and Securities Exchange Act Release No. 82513 (January 17, 2018), 83 FR 3244 (January 23, 2018) (SR-OCC-2017-809). The proposed changes currently pending review in SR-OCC-2017-020 and SR-OCC-2017-809 are indicated in Exhibit 5B with double underlined and double strikethrough text.

<sup>3</sup> Id. Proposed changes currently pending review in SR-OCC-2017-020 and SR-OCC-2017-809 are indicated in Exhibit 5C with double underlined and double strikethrough text.

<sup>4</sup> OCC's By-Laws and Rules can be found on OCC's public website:  
<http://optionsclearing.com/about/publications/bylaws.jsp>.

OCC currently sizes its Clearing Fund at an amount sufficient to protect OCC against losses under simulated default scenarios that include (1) an idiosyncratic default scenario that includes the default of the single Clearing Member Group whose default would be likely to result in the largest draw against the Clearing Fund at a 99% confidence level and (2) a minor systemic event default scenario involving the near-simultaneous default of two randomly-selected Clearing Member Groups calculated at a 99.9% confidence level (“Cover 1 Standard”).<sup>5</sup> OCC then uses the daily peak of such draw estimates to determine the monthly size of the Clearing Fund, which is established at the greater of (i) a “base amount” equal to the peak five-day rolling average of the Clearing Fund Draws<sup>6</sup> observed over the preceding three calendar months, plus a prudential margin of safety equal to \$1.8 billion, or (ii) 110% of OCC’s committed credit facilities. Upon each monthly determination of the Clearing Fund’s size, each Clearing Member is required to contribute an amount equal to the sum of: (i) the \$150,000 minimum membership requirement, and (ii) an amount equal to the weighted average of the Clearing Member’s proportionate share of open interest, volume, and total risk charges.<sup>7</sup> Any deficits resulting from a difference between a Clearing Member’s required Clearing Fund contribution and the amount that such member currently has on deposit are due within five business days of the resizing.<sup>8</sup>

Supplemental to the monthly Clearing Fund sizing process, OCC’s Financial Risk Management department (“FRM”) assesses on a daily basis the sufficiency of the Clearing Fund by monitoring Clearing Fund Draw estimates in order to identify exposures that may require collection of additional margin from a Clearing Member Group or an intra-month resizing of the Clearing Fund in accordance with OCC’s FRMC Procedure.<sup>9</sup> In instances where an estimate of a particular Clearing Member Group’s Clearing Fund Draw (referred to herein as an “idiosyncratic” estimate) exceeds 75% of the amount currently in the Clearing Fund (i.e., the current Clearing Fund requirement less any deficits), OCC issues a margin call against the Clearing Member Group(s) generating such draw(s) for an amount equal to the difference between such estimated draw amount and the base amount of the Clearing Fund.<sup>10</sup> The margin call per-Clearing Member may be limited

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<sup>5</sup> See Rule 1001(a).

<sup>6</sup> The term “Clearing Fund Draw” refers to an estimated stress loss exposure in excess of margin requirements.

<sup>7</sup> See Rule 1001(b).

<sup>8</sup> See Rule 1003.

<sup>9</sup> See Securities Exchange Act Release No. 74980 (May 15, 2015), 80 FR 29364 (May 21, 2015) (SR-OCC-2015-009). See also Securities Exchange Act Release No. 74981 (May 15, 2015), 80 FR 29367 (May 21, 2015) (SR-OCC-2014-811).

<sup>10</sup> In the case where an estimated draw is associated with multiple Clearing Members within a single Clearing Member Group, the margin call is allocated among the individual Clearing Members in the Clearing Member Group based on each Clearing Member’s proportionate share of the “total risk” for such Clearing Member Group, as that term is defined in current Rule 1001(b). See Rule 1001(b). Accordingly, the term “total risk” in this context means the margin requirement with respect to all

to an amount equal to the lesser of \$500 million or 100% of such Clearing Member's net capital, subject to OCC management discretion. All margin calls issued must be satisfied by each applicable Clearing Member within one hour of having been notified and remain in place until deficits associated with the next monthly Clearing Fund sizing are collected.<sup>11</sup>

In more extreme circumstances, where OCC observes an idiosyncratic Clearing Fund Draw estimate (after factoring in margin calls issued) exceeding 90% of the Clearing Fund, OCC increases the size of the Clearing Fund by a minimum amount equal to the greater of (i) \$1 billion, or (ii) 125% of the difference between the projected draw (reduced by margin calls issued) and the Clearing Fund in effect. Each Clearing Member not subject to OCC's minimum \$150,000 Clearing Fund requirement (e.g., a Futures-Only Affiliated Clearing Member) receives a proportionate share of the Clearing Fund increase equal to its proportionate share of the variable portion of the Clearing Fund for the current month (i.e., the Clearing Member's proportionate share of the Clearing Fund amount as determined pursuant to current Rule 1001(b)(y)). Any deficits associated with the increase to the Clearing Fund must be satisfied within five business days of the resizing.

OCC has identified a number of limitations to its current methodology, which is unable to incorporate historical stress test scenarios and which can result in disproportionate changes to the Clearing Fund size in response to even transitory changes in volatility. As a result, OCC is proposing to replace its current Clearing Fund sizing methodology with a new methodology that would allow OCC to size and assess the sufficiency of its Clearing Fund with a wider range of historical and hypothetical scenarios.

### **Proposed Changes to OCC's Clearing Fund and Stress Testing Rules and Methodology**

OCC is proposing a number of enhancements intended to strengthen its overall resiliency, particularly with respect to OCC's Pre-Funded Financial Resources,<sup>12</sup> including, but not limited to, the following:

- (1) reorganize, restate, and consolidate the provisions of OCC's By-Laws and Rules relating to the Clearing Fund into a newly revised Chapter X of OCC's Rules;
- (2) modify the coverage level of OCC's Clearing Fund sizing requirement to ensure that the size of the Clearing Fund is sufficient to protect OCC against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit

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accounts of the Clearing Member Group exclusive of the net asset value of the positions in such accounts aggregated across all such accounts.

<sup>11</sup> See *supra* note 9.

<sup>12</sup> The proposed Policy would define OCC's "Pre-Funded Financial Resources" to mean margin of the defaulted Clearing Member and the required Clearing Fund less any deficits, exclusive of OCC's assessment powers.

exposure for OCC in extreme but plausible market conditions (i.e., adopt a “Cover 2 Standard” for sizing the Clearing Fund);

(3) adopt a new risk tolerance for OCC to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period;

(4) adopt a new Clearing Fund and stress testing methodology, which would be underpinned by a new scenario-based one-factor risk model stress testing approach, as detailed in the newly proposed Policy and Methodology Description;<sup>13</sup>

(5) document governance, monitoring, and review processes related to Clearing Fund and stress testing;

(6) provide for certain anti-procyclical<sup>14</sup> limitations on the reduction in Clearing Fund size from month to month;

(7) increase the minimum Clearing Fund contribution requirement for Clearing Members to \$500,000;

(8) modify OCC’s allocation weighting methodology for Clearing Fund contributions;

(9) reduce from five to two business days the timeframe within which Clearing Members are required to fund Clearing Fund deficits due to monthly or intra-month resizing or due to Rule amendments;

(10) provide additional clarity in OCC’s Rules regarding certain anti-procyclicality measures in OCC’s margin model; and

(11) make a number of other non-substantive clarifying, conforming, and organizational changes to OCC’s By-Laws, Rules, and filed procedures.

### ***1. Reorganization and Consolidation of Clearing Fund By-Laws and Rules***

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<sup>13</sup> OCC has separately submitted its Comprehensive Stress Testing and Clearing Fund Methodology document and Dynamic VIX Calibration Process paper, which are included in this filing as Exhibits 3A and 3B, and for which OCC has requested confidential treatment. These Exhibits are being provided as supplemental information to the filing and would not constitute part of OCC’s rules, which have been provided in Exhibit 5.

<sup>14</sup> A quality that is positively correlated with the overall state of the market is deemed to be “procyclical.” For example, procyclicality may be evidenced by increasing margin or Clearing Fund requirements in times of stressed market conditions and low margin or Clearing Fund requirements when markets are calm. Hence, anti-procyclical features in a model are measures intended to prevent risk-based models from fluctuating too drastically in response to changing market conditions.

The primary provisions that address OCC's Clearing Fund are currently located in Article VIII of the By-Laws and Chapter X of the Rules. Because the proposed changes to the Clearing Fund would substantially amend the relevant By-Law and Rule provisions, OCC believes that this is an appropriate opportunity to consolidate the primary provisions that address the Clearing Fund into Chapter X of the Rules. As a result, the content of Article VIII of the By-Laws would be consolidated into Chapter X of the Rules, subject to the proposed amendments described herein.<sup>15</sup> In place of this, Article VIII of the By-Laws would contain a general statement that OCC shall maintain a Clearing Fund, as provided in and subject to the terms of Chapter X of the Rules, and the size of the Clearing Fund shall at all times be subject to minimum sizing requirements and generally be calculated on a monthly basis by OCC; however, the size of the Clearing Fund may be adjusted more frequently than monthly under certain conditions specified in proposed Rule 1001. OCC believes that consolidating all of the Clearing Fund-related provisions of its By-Laws and Rules into one place would provide more clarity around, and enhance the readability of, OCC's Clearing Fund requirements.

OCC notes that, while the content of Article VIII is being moved out of the By-Laws and into the Rules, subject to the proposed changes described herein, OCC is not proposing to change the existing governance requirements with respect to amending the provisions currently contained in Article VIII. Article XI, Section 2 of the By-Laws provides that the Board of Directors may amend the Rules by a majority vote, while Article XI, Section 1 of the By-Laws provides that amendments to the By-Laws require an affirmative vote of two-thirds of the directors then in office, but not less than a majority of the number of directors fixed by the By-Laws. To ensure that the latter, heightened governance standard continues to apply to the Clearing Fund provisions that will be moved from Article VIII of the By-Laws to Chapter X of the Rules, OCC is proposing to amend Article XI, Section 2 of the By-Laws to apply the heightened approval requirements to the provisions of Chapter X of the Rules that would be carried over from the By-Laws. Specifically, OCC would amend Article XI of the By-Laws to stipulate that while the Rules may be amended at any time by the Board of Directors, any amendment of the introduction to newly proposed Chapter X of the Rules, Rule 1002, Rule 1006, Rule 1009 and Rule 1010 (the substance of which is primarily derived from Article VIII of the By-Laws) shall require the affirmative vote of two-thirds of the directors then in office (but not less than a majority of the number of directors fixed by the By-Laws). Moreover, Article XI of the By-Laws would be amended to provide that the first sentence of proposed Rule 1006(e) may not be amended by action of the Board of Directors without the approval of the holders of all of the outstanding Common Stock of the OCC entitled to vote thereon. Proposed Rule 1006(e) is derived from existing Article VIII, Section 5(d) of the By-Laws, which is currently subject to this stockholder consent requirement under Article XI, Section 1 of the By-Laws. A detailed discussion of other organizational changes can be found in Section 11 below.

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<sup>15</sup> While Article VIII of the By-Laws would effectively be reserved for future use, a statement would be added to indicate that OCC maintains the Clearing Fund as provided in and subject to the Rules provided in Chapter X.

As noted above, and further described below, OCC also proposes to adopt a new Policy and Methodology Description to supplement its proposed Rules and provide further details around OCC's Clearing Fund and stress testing methodology and the related governance framework.

## ***2. Adoption of a Cover 2 Standard for OCC's Clearing Fund***

Under existing Rule 1001(a) and consistent with applicable requirements under the Act and the Exchange Act, OCC currently maintains a Cover 1 Standard with respect to the size of its Clearing Fund. The current methodology uses a sizing approach whereby OCC estimates draws against the Clearing Fund under a simulated idiosyncratic default scenario (representing simulated losses of a single Clearing Member Group) and a minor systemic default scenario (representing all pairings of two Clearing Member Groups, with each pair of distinct Clearing Member Groups being deemed equally likely).

OCC is proposing to amend its Rules and adopt a new Policy and Methodology Description to implement a Cover 2 Standard with respect to sizing the Clearing Fund. As a result, new Rule 1001(a), which replaces existing Rule 1001(a), would provide, in part, that the size of the Clearing Fund shall be established on a monthly basis at an amount determined by OCC to be sufficient to protect it against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for OCC under stress test scenarios that represent extreme but plausible market conditions (subject to certain minimum sizing requirements) (such stress tests being "Sizing Stress Tests").<sup>16</sup> The proposed Sizing Stress Tests would be supplemented by additional historical or hypothetical stress test scenarios ("Sufficiency Stress Tests") and, in the event Sufficiency Stress Tests call for a larger Clearing Fund size, the Clearing Fund shall be re-sized based on such Sufficiency Stress Tests (as described in more detail in Section 4 below).

The adoption of a Cover 2 Standard for the Clearing Fund would continue to satisfy OCC's existing regulatory obligations under the derivatives clearing organization ("DCO") core principles ("Core Principles") as set forth in the Act (as discussed in further detail below) and the Exchange Act and rules thereunder, and also would be consistent with international standards and best practices for central counterparties ("CCPs").<sup>17</sup> OCC believes that moving to an industry best practice Cover 2 Standard would increase OCC's resiliency and enable it to better withstand the default of multiple Clearing Members. OCC's proposed approach of adopting a Cover 2 Standard is

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<sup>16</sup> The calculated size of the Clearing Fund may also be determined more frequently than monthly under certain conditions, as specified within proposed Rule 1001(c).

<sup>17</sup> See Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, Principles for financial market infrastructures (Apr. 16, 2012), available at <http://www.bis.org/publ/cpss101a.pdf>.



reiterated in the proposed Policy and Methodology Description, and the stress tests referred to in new Rule 1001(a) are described in more detail in Section 4 below.<sup>18</sup>

### **3. *New Risk Tolerance for OCC's Pre-Funded Financial Resources***

OCC proposes to adopt a new risk tolerance with respect to credit risk that its Clearing Fund, along with OCC's other Pre-Funded Financial Resources,<sup>19</sup> should be sufficient to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure in extreme but plausible market conditions. In developing a risk tolerance with regard to the sizing of the Clearing Fund, OCC believes that a 1-in-50 year hypothetical market event<sup>20</sup> represents the outer range of extreme but plausible scenarios for OCC's cleared products. Accordingly, OCC proposes to adopt a new risk tolerance with respect to sizing its Pre-Funded Financial Resources that would cover a 1-in-50 year hypothetical market event on a Cover 2 Standard at a 99.5% confidence level over a two-year look-back period. The hypothetical scenarios used to establish the proposed risk tolerance would be based on the statistical fit of the historical returns for the "risk drivers" of equity products (or "risk factors") for a 1-in-50 year decline and rally in the Standard & Poor's S&P 500 Index ("SPX").<sup>21</sup> OCC would then set the size of its Clearing Fund on a monthly basis at an amount sufficient to cover this risk tolerance, as described in more detail in Section 4 below.

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<sup>18</sup> Under the proposed Clearing Fund methodology, OCC would no longer maintain the prudential margin of safety, as currently provided for in existing Rule 1001(a). As described further herein, OCC's proposed risk tolerance would be set at a 1-in-50 year market event; however, OCC would size its Clearing Fund to cover a more conservative 1-in-80 year event, creating a buffer beyond its risk tolerance. As a result, OCC believes the prudential margin of safety would no longer be necessary.

<sup>19</sup> Under the proposed Policy, "Pre-Funded Financial Resources" would be defined as the margin of the defaulted Clearing Member and the required Clearing Fund less any deficits. OCC would not include assessment powers as a Pre-Funded Financial Resource.

<sup>20</sup> OCC notes that a 1-in-50 year hypothetical market event corresponds to a 99.9921% confidence interval under OCC's chosen distribution of 2-day logarithmic S&P 500 index returns. The construction of Hypothetical stress test scenarios, including the 1-in-50 year market event used for OCC's risk tolerance, is discussed in Section 4 below.

<sup>21</sup> "Risk factors" refer broadly to all of the individual underlying securities (such as Google, IBM and Standard & Poor's Depository Receipts ("SPDR"), S&P 500 Exchange Traded Funds ("SPY"), etc.) listed on a market. The "risk drivers" are a selected set of securities or market indices (e.g., the SPX or the Cboe Volatility Index ("VIX")) that are used to represent the main sources or drivers for the price changes of the risk factors. The use and application of risk factors and risk drivers in OCC's proposed methodology are discussed further in Section 4 below.

#### *4. Adoption of New Clearing Fund and Stress Testing Methodology*

OCC proposes to adopt a new methodology for sizing and monitoring its Clearing Fund and overall Pre-Funded Financial Resources, which primarily would be detailed in the proposed Policy and the Methodology Description. OCC believes that its proposed methodology would enable it to measure its credit exposure and to size its Pre-Funded Financial Resources at a level sufficient to cover potential losses under extreme but plausible market conditions.

Under the requirements of the proposed Policy, OCC would base its determination of the Clearing Fund size on the results of stress tests conducted daily using standard predetermined parameters and assumptions. These daily stress tests would consider a range of relevant stress scenarios and possible price changes in liquidation periods, including but not limited to: (1) relevant peak historic price volatilities; (2) shifts in other market factors including, as appropriate, price determinants and yield curves; and (3) the default of one or multiple Clearing Members. OCC also would conduct reverse stress tests for informational purposes aimed at identifying extreme default scenarios and extreme market conditions for which the OCC's financial resources would be insufficient.

As further described in the proposed Methodology Description, the stress scenarios used in the proposed methodology would consist of two types of scenarios: "Historical Scenarios" and "Hypothetical Scenarios." Historical Scenarios would replicate historical events in current market conditions, which include the set of currently existing securities, their prices and volatility levels. These scenarios provide OCC with information regarding pre-defined reference points determined to be relevant benchmarks for assessing OCC's exposure to Clearing Members and the adequacy of its financial resources. Hypothetical Scenarios would represent events in which market conditions change in ways that have not yet been observed. The Hypothetical Scenarios would be derived using statistical methods (e.g., draws from estimated multivariate distributions) or created based on expert judgment (e.g., a 15% decline in market prices and 50% in volatility). These scenarios would give OCC the ability to change the distribution and level of stress in ways necessary to produce an effective forward-looking stress testing methodology. OCC would use these pre-determined stress scenarios in stress tests, conducted on a daily basis, to determine OCC's risk exposure to each Clearing Member Group by simulating the profits and losses of the positions in their respective account portfolios under each such stress scenario.

The proposed Methodology Description would also describe OCC's proposed approach for constructing stress test portfolios. For purposes of the proposed methodology, OCC would construct portfolios based on "liquidation positions," which are designed to more closely reflect how positions would be internalized (or netted) as part of OCC's default management process. The liquidation position set is created through an internalization process where long and short positions in the same contract series are closed out within an account type at the Clearing Member level. This replicates the process OCC would perform in the case of a Clearing Member default when offsetting positions are internalized before liquidating the remainder of the defaulter's portfolio. For simplicity purposes, OCC developed its current set of liquidation positions by internalizing within an account

type at the Clearing Member level but does not incorporate potential internalization that can occur across account types. As a result, liquidation positions only reflect a portion of the potential exposure-reducing benefits associated with internalization and may lead to more conservative estimates of exposure.

As described further below, the proposed Policy and Methodology Description would include stress tests designed to: (1) determine the size of the Clearing Fund (i.e., Sizing Stress Tests run using OCC's inventory of "Sizing Scenarios"), (2) assess OCC's Clearing Fund size with respect to its risk tolerance and any other scenarios determined by the Risk Committee (i.e., Adequacy Stress Tests run using OCC's inventory of "Adequacy Scenarios"), (3) measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional margin resources from that individual Clearing Member Group (or Groups) or from Clearing Members generally through an intra-month resizing of the Clearing Fund (i.e., Sufficiency Stress Tests run using OCC's inventory of "Sufficiency Scenarios"), and (4) monitor and assess OCC's total financial resources under a variety of market conditions (i.e., Informational Stress Tests run using OCC's inventory of "Informational Scenarios").

OCC's proposed stress testing model, the construction of Hypothetical and Historical Scenarios, and the variety of stress tests thereunder are described in more detail below.

***a. Proposed Stress Testing Model***

***(i). Risk Drivers and Stress Scenarios***

As detailed in the proposed Methodology Description, the proposed stress testing methodology is a scenario-based risk factor model with the following principal elements. First, a set of risk drivers are selected based on the portfolio exposures of all Clearing Member Groups in the aggregate. Second, each individual underlying security contained in the portfolio of a Clearing Member Group (each a "risk factor") is mapped to a risk driver, and the sensitivity or "beta" of the security with respect to the corresponding risk driver is estimated (i.e., the sensitivity of the price of the security relative to the price of the risk driver). Third, a set of stress scenarios is generated by assigning a stress shock to each of the risk drivers, with the shocks of an individual underlying security or risk factor determined by the shock of its risk driver and its sensitivity (or beta) to the risk driver. Fourth, for each of the stress scenarios, the risk exposure or shortfall of each portfolio of a Clearing Member is calculated and aggregated at the Clearing Member Group level.

Under the proposed stress testing methodology, each individual underlying security in the Clearing Members' portfolios is represented by a risk factor (such as Google, IBM, Standard & Poor's Depository Receipts ("SPDR"), S&P 500 Exchange Traded Funds ("SPY"), etc.). The number of risk factors is typically in the thousands. Because the vast amount of OCC's products are equity based, the risk drivers comprise a small set of underlying securities or market indices (e.g., Cboe S&P 500 Index ("SPX"), or the VIX) that are used to represent the main sources or drivers for

the price changes of the risk factors. Other relevant risk drivers are included to cover U.S. and Canadian Government Security collateral positions, as well as commodity based exchange-traded funds (“ETFs”) and futures products. The risk drivers are selected based on the characteristics of the risk factors in the Clearing Members’ portfolios.

After the risk drivers are selected, each risk factor would be mapped to one risk driver. This mapping allows OCC to simulate movements for a large number of risk factors by the movements of a smaller number of risk drivers. In general, the mapping depends on the type of risk factor. For example, equity price risk factors generally are mapped to SPX and volatility risk factors to VIX. Government bond risk factors generally would be mapped to either U.S. Dollar (“USD”) Treasury yields or Canadian Dollar (“CAD”) government bond yields depending on the currency. The Treasury ETFs generally would be mapped to one of the Treasury bond ETFs. The commodity products generally would be mapped to one of the representative ETFs of the corresponding commodity class. All other risk factors initially would be mapped by default to SPX.

Under the proposed Methodology Description, risk drivers and the corresponding shocks would be reviewed regularly by OCC’s Stress Testing Working Group (“STWG”), a cross-departmental team including senior officers from FRM, Quantitative Risk Management (“QRM”), Model Validation Group (“MVG”), and Enterprise Risk Management. The addition of a new risk driver or change in an existing risk driver would most likely be driven by a change in OCC’s product exposure or by other changes in the market. Changes to risk drivers would be reviewed and approved by the STWG. QRM would recalibrate scenario shocks at least annually. In addition, on a quarterly basis (or more frequently if QRM or STWG determines that updates are necessary to capture significant market events in a timely fashion), QRM would recalibrate the risk driver shocks and report those results to the STWG who would review and approve any updates to the risk driver shocks.

To simulate a stressed market scenario, OCC would construct two kinds of scenarios, namely Hypothetical Scenarios (including statistically derived scenarios) and Historical Scenarios. Hypothetical Scenarios constructed using statistical methods would be based on various quantiles of the fitted distribution of the log returns of the main risk driver (e.g., SPX). Historical Scenarios on the other hand would be created using historic price moves for the risk factors on a given date where the scenario is defined. Additional details on the proposed stress testing model by asset class are discussed below.

#### ***(ii). Equity Risk Drivers and Shocks***

Under the proposed methodology, price shocks used for equity instruments in the statistically-derived Hypothetical Scenarios would be based on the quantiles of fitted statistical distributions of the 2-day returns of the risk driver (e.g., a 1-in-80 year event SPX down shock). For example, as noted above, OCC uses the SPX as a risk driver for equity price moves. OCC would construct the majority of its Hypothetical Scenarios by fitting an appropriate statistical distribution to SPX returns. OCC would construct a historical dataset of SPX 2-day log returns dating back to

1957,<sup>22</sup> to characterize its fat-tailed<sup>23</sup> and asymmetric distribution. In order to reduce procyclicality in Clearing Fund sizing and also to represent betas in a stressed market, OCC would shock risk factors using (1) a historical beta and (2) a beta equal to 1. The portfolio level profit and loss would be calculated with both betas separately for each Hypothetical Scenario, and OCC would use the calculation yielding the worst of the two outcomes in the subsequent Clearing Fund sizing.

The proposed Methodology Description would describe in detail OCC's proposed methodology for calculating price shocks for equity instruments, including leveraged products and any underlying baskets.

*(iii). Volatility Shock Model*

As noted above, under the proposed methodology, OCC would use the VIX as the key risk driver for volatility shocks in its proposed stress testing model. The VIX is a measure of the one-month implied volatility<sup>24</sup> of the SPX, which represents the market's expectation of stock market volatility over the next 30-day period. For risk factors with SPX as their risk driver, implied volatility shocks would be modeled from SPX implied volatility shocks and the price beta of the risk factor.<sup>25</sup> For non-SPX driven risk factors, the implied volatility shock would be based on historical

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<sup>22</sup> OCC would extend this dataset from March 1957 to the present if OCC determines that price shocks need to be re-calibrated. As a general matter, OCC has established this look-back period primarily on the basis of the quality of available data. The SPX, in its current form, dates back to 1957, and OCC therefore uses all of the index's data since that date. Furthermore, based on OCC's analysis of various observation windows dating back to the Great Depression, OCC has observed that the price shocks vary with the different periods used in the calibration. OCC's decision to use the entire history of the SPX is based on its desire to minimize the effects associated with a pre-defined observation window, and to avoid the subjective determination of higher or lower periods of volatility or the sudden exclusion of dates that fall outside of a fixed look back period. As noted above, QRM would recalibrate the risk driver shocks on a quarterly basis and report those results to the STWG who would review and approve any updates to the risk driver shocks.

<sup>23</sup> A data set with a "fat tail" is one in which extreme price returns have a higher probability of occurrence than would be the case in a normal distribution.

<sup>24</sup> Generally speaking, the implied volatility of an option is a measure of the expected future volatility of the value of the option's annualized standard deviation of the price of the underlying security, index, or future at exercise, which is reflected in the current option premium in the market. Using the Black-Scholes options pricing model, the implied volatility is the standard deviation of the underlying asset price necessary to arrive at the market price of an option of a given strike, time to maturity, underlying asset price and given the current risk-free rate. In effect, the implied volatility is responsible for that portion of the premium that cannot be explained by the then-current intrinsic value (i.e., the difference between the price of the underlying and the exercise price of the option) of the option, discounted to reflect its time value.

<sup>25</sup> For defined Historical Scenarios, the implied volatility shock leverages a beta based on the ratio of the risk factor price shock to the SPX price shock.

volatility beta regressed directly against the VIX. Accordingly, the proposed Methodology Description would describe in detail OCC's proposed methodology for calibrating VIX shocks, including those risk factors with SPX as the key risk driver, those risk factors with a non-SPX risk driver, and implied volatilities of any underlying baskets.

***(iv). Price Shock Models for Other Instruments***

OCC's proposed Methodology Description also would describe OCC's proposed approach to modeling price shocks for fixed income instruments and futures products. Specifically, the Methodology Description would discuss OCC's proposed approach for modeling foreign exchange currency shocks and yield curve shocks, which are used to shock U.S. Treasury bonds and Canadian government bonds held as collateral. The Methodology Description would also cover price and volatility shocks for commodity/energy products. The price shock model for commodity/energy products is the same as that for equity class drivers and the volatility shock model used for options on commodities is the same as that for non-SPX driven risk factors.

***b. Stress Testing Scenario Construction***

OCC proposes to construct Hypothetical and Historical scenarios using two different methodologies: a statistical methodology and a historical/defined shock methodology. Each of these approaches is discussed in further detail below.

***(i). Hypothetical Scenarios***

Under the proposed methodology, price shocks determined in the statistically-derived Hypothetical Scenarios would be based on the quantiles of fitted statistical distributions of the 2-day log returns of the risk driver. For example, Adequacy Scenarios would be based on the generated statistical down and up shocks for the SPX from a 1-in-50 year market event. On the other hand, Sizing Scenarios would be based on the generated statistical down and up shocks for the SPX from a 1-in-80 year market event. Specifically, OCC would use four Hypothetical Scenarios to guide the sizing of the Clearing Fund: (1) a 1-in-80 year market rally using a historical beta; (2) a 1-in-80 year market rally using a beta equal to 1; (3) a 1-in-80 year market decline using a historical beta; and (4) a 1-in-80 year market decline using a beta equal to 1.

Not all Statistical Scenarios would be generated using fitted distributions, however. For example, the Statistical Scenarios for interest rates are based on the "Principal Component Analysis" methods (a commonly used statistical method to analyze the movements of yield curves of Treasury bonds), while the Statistical Scenarios for commodity ETFs would be based on the empirical price changes.

The proposed Methodology Description would describe how OCC would calibrate price and volatility shocks for equities, fixed income products, and commodity/energy products in its Hypothetical Scenarios.

*(ii). Historical Scenarios*

OCC would construct Historical Scenarios using historically accurate price moves for risk factors on a given date, provided the underlying securities were available on the date for which the scenario is defined. Historical Scenarios, which are based on significant market events, would allow OCC to analyze how current portfolios would perform if a historical event were to occur again. Because not all of the securities or risk factors in current portfolios existed on past scenario dates, OCC has developed methodologies to approximate the past price and volatility movements of such risk factors. Under the proposed methodology, a technique known as “Survival Method Pricing” would be used to backfill missing historical shocks. In the backfill technique, the observable 2-day returns of all risk factors would be averaged by industry sectors, and these sector averages would then be used to backfill the missing price returns of the securities (for example, Facebook stock would use the technology sector average under a 2008 Historical Scenario).<sup>26</sup>

*c. Clearing Fund Sizing and Stress Testing*

Under the proposed methodology, OCC would perform daily stress testing using a wide range of scenarios, both Hypothetical and Historical, designed to serve multiple purposes. Specifically, OCC’s proposed stress testing inventory would contain scenarios designed to: (1) determine whether the financial resources collected from all Clearing Members collectively are adequate to cover OCC’s risk tolerance; (2) establish the monthly size of the Clearing Fund; (3) measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups, and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional resources so that OCC continues to maintain sufficient financial resources to guard against potential losses under a wide range of stress scenarios, including extreme but plausible market conditions; and (4) monitor and assess the size of OCC’s Pre-Funded Financial Resources against a wide range of stress scenarios that may include extreme but implausible and reverse stress testing scenarios. Each of these categories of stress tests is discussed in further detail below.

*(i). Adequacy Stress Tests*

Under the proposed Policy and Methodology Description, on a daily basis, OCC would perform a set of Adequacy Stress Tests designed to determine whether the financial resources collected from all Clearing Members collectively are adequate to cover OCC’s risk tolerance (and other specified scenarios as may be approved by the Risk Committee) (i.e., Adequacy Scenarios). The performance of these Adequacy Stress Tests would allow OCC to assess the size of its Clearing Fund against its risk tolerance; however, Adequacy Stress Tests would not drive calls for additional financial resources. Adequacy Scenarios would include, at a minimum, scenarios reflecting OCC’s

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<sup>26</sup> With respect to volatility risk driver shocks, the exact volatility scenarios for a historical event may often be overridden by VIX shocks generated using OCC’s dynamic VIX calibration process because: (1) the historical volatility data is not available; and (2) even when the data is available, the sizes of the exact historical moves are too low to generate any realistic losses.

proposed risk tolerance, which corresponds to a Clearing Fund size that would cover a 1-in-50 year market event on a Cover 2 Standard. Adequacy Stress Tests should demonstrate that OCC maintains sufficient Pre-Funded Financial resources to cover all Adequacy Scenarios at a 99.5% coverage level over a two-year look back period.

*(ii). Sizing Stress Tests*

Under the proposed Policy and Methodology Description, FRM would determine the monthly Clearing Fund size based on the results of Sizing Stress Tests conducted daily using standard predetermined parameters and assumptions. Specifically, OCC would use Sizing Stress Tests to project the Clearing Fund size necessary for OCC to maintain sufficient Pre-Funded Financial Resources to cover losses arising from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure to OCC as a result of a 1-in-80 year hypothetical market event, which OCC believes would provide sufficient coverage of OCC's 1-in-50 year event risk tolerance (and any other Adequacy Scenarios as may be approved by the Risk Committee) and to guard against intra-month scenario volatility and procyclicality.<sup>27</sup>

Under existing Rule 1001(a), OCC's Clearing Fund size determination is based on the peak five-day rolling average of its Clearing Fund sizing calculations observed over the preceding three calendar months plus a prudential margin of safety. As described in the proposed Policy and Methodology Description, OCC would continue to determine the Clearing Fund size for a given month by using a peak five-day rolling average of the Sizing Stress Test results over the prior three months but, as noted above, would no longer require a prudential margin of safety.<sup>28</sup> OCC believes that sizing the Clearing Fund at a more conservative 1-in-80 year market event scenario (over the proposed 1-in-50 year risk tolerance) would help to reduce volatility in its Clearing Fund sizing methodology and ensure that OCC continues to maintain sufficient resources in the event of large peaks and volatile markets, thereby providing a similar anti-procyclical buffer to the current prudential margin of safety.

In addition, under the proposed Policy, the minimum size of the Clearing Fund would continue to be set in accordance with OCC's minimum liquidity resources to equal 110% of OCC's committed liquidity facilities plus OCC's Cash Clearing Fund Requirement. However, if a temporary increase to the Cash Clearing Fund Requirement is made pursuant to OCC's Rules, the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer would be authorized to determine whether such an increase should result in an increase in the minimum size of the Clearing Fund (which is tied to, in part, OCC's Cash Clearing Fund Requirement).

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<sup>27</sup> In addition, OCC proposes conforming changes to delete Interpretation and Policy .02 of Rule 1001, which concerns the minimum confidence level used to size the Clearing Fund, as the confidence level used to size the Clearing Fund would now be addressed in the Policy and Methodology Description.

<sup>28</sup> See supra note 18.



OCC also proposes to introduce some anti-procyclical measures for its monthly sizing process, which are discussed in Section 6 below.

***(iii). Sufficiency Stress Tests***

On a daily basis, OCC would run a set of Sufficiency Stress Tests to measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional resources (1) from that individual Clearing Member Group (or Groups) in the form of margin or (2) from Clearing Members generally through an intra-month resizing of the Clearing Fund. OCC initially expects to implement a set of historically-based Sufficiency Scenarios that would include, among others, the worst two-day price moves, up and down, during the 2008 financial crisis, which constitute the two most extreme two-day price moves observed in the entire history of SPX with the exception of the 1987 market crash, to be covered on a Cover 2 basis. OCC also would include as a Sufficiency Scenario a historical October 1987 market crash event to be covered on a Cover 1 basis.

Under the proposed Sufficiency Stress Tests, the largest Clearing Fund Draw from each Sufficiency Scenario shall be compared against the Clearing Fund size on a daily basis to assess whether OCC maintains sufficient financial resources to cover the stress scenario. If a Sufficiency Stress Test indicates that a Clearing Fund Draw would breach certain established thresholds, OCC would initiate (depending on the threshold breached) the process of (1) conducting additional monitoring, (2) collecting additional margin from the specific Clearing Member Group (or Groups) causing the breach, or (3) in extreme cases, resizing the Clearing Fund. Such thresholds have been designed to ensure that OCC's Pre-Funded Financial Resources would remain sufficient to cover losses that may be incurred by its largest one or two Clearing Member Groups, depending on the scenario in question. Each proposed threshold is set forth below, and included with each threshold are mitigating actions that OCC would take in the event of a breach of the threshold.

***(1). Enhanced Monitoring***

Under the proposed Policy, in the event that Sufficiency Stress Tests identify a Clearing Fund Draw for one or two Clearing Member Groups that causes the largest aggregate credit exposure to OCC to exceed 65% of the current Clearing Fund requirement less deficits, but that does not breach a Sufficiency Stress Test Threshold (as defined below), FRM would promptly conduct enhanced monitoring and notify the relevant Clearing Member Group (or Groups) that they are approaching a margin call threshold in accordance with internal OCC procedures.<sup>29</sup>

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<sup>29</sup> OCC notes that it performs a similar enhanced monitoring process under its current FRMC Procedure when Idiosyncratic Clearing Fund Draws exceed 65% of the Clearing Fund currently in effect.

***(2). Sufficiency Stress Test Threshold 1 – Intra-Day Margin Calls***

OCC proposes to amend Rule 609 to provide that, in addition to its existing authority to require intra-day margin deposits, OCC may require additional margin deposits if a Sufficiency Stress Test identifies a breach that exceeds 75% of the current Clearing Fund requirement less deficits (the “75% threshold” or “Sufficiency Stress Test Threshold 1”). The proposed change is designed to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its largest one or two Clearing Member Group exposures under a wide range of stress scenarios, including extreme but plausible scenarios, where one of the proposed Sufficiency Stress Test scenarios identifies a potential breach in OCC’s Clearing Fund size. In the event of a breach of the 75% threshold, OCC would initially collateralize this potential stress exposure by collecting margin from the Clearing Member Group(s) driving the breach.

Pursuant to the proposed Policy and Methodology Description, if a Sufficiency Stress Test identifies a Clearing Fund Draw for any one or two Clearing Member Groups that exceeds Sufficiency Stress Test Threshold 1, OCC would be authorized to issue a margin call against the Clearing Member Group(s) and/or Clearing Member(s) causing the breach in accordance with Rule 609. In the case of Cover 1 Sufficiency Scenarios (e.g., the historical Cover 1 1987 scenario), the amount of the margin call for a Clearing Member Group would be equal to the excess of such Clearing Member Group’s projected Clearing Fund Draw over the 75% threshold. In the case of Cover 2 Sufficiency Scenarios (e.g., a historical Cover 2 2008 market event scenario) the total amount of the margin call shall be equal to the excess of the Cover 2 Clearing Fund Draw over the 75% threshold.<sup>30</sup> In the event a Clearing Member Group’s Clearing Fund Draws exceed the 75% threshold in more than one Sufficiency Scenario, the Clearing Member Group would be subject to the largest margin call resulting from those scenarios. Margin calls would be allocated to Clearing Members and related accounts within the Clearing Member Group in accordance with OCC procedures.<sup>31</sup>

All margin calls would be required to be approved by a Vice President (or higher) of FRM and would remain in effect until the collection of additional funds associated with the next monthly resizing of the Clearing Fund, after which the margin call would be (1) released or (2) recalculated

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<sup>30</sup> In the event only one Clearing Member Group’s Clearing Fund Draw exceeds 50% of Sufficiency Stress Test Threshold 1, that Clearing Member Group would pay the entire call. In the event both Clearing Member Groups’ Clearing Fund Draws exceed 50% of Sufficiency Stress Test Threshold 1, both Clearing Member Groups would pay an amount equal to the excess of their respective Clearing Fund Draw over 50% of the Sufficiency Stress Test threshold.

<sup>31</sup> OCC notes that under the current FRMC Procedure, in the event that FRM observes a scenario where the Idiosyncratic Clearing Fund Draw exceeds 75% of the Clearing Fund, an intra-day margin call would be issued against the Clearing Member or Clearing Member Group that caused such a draw, with the amount of the margin call being the difference between the projected draw and the “base amount.” See supra note 9 and accompanying text.

based on the current Clearing Fund Draw.<sup>32</sup> If the margin call imposed on an individual Clearing Member exceeds \$500 million, OCC's Stress Testing and Liquidity Risk Management group ("STLRM") would provide written notification to the Executive Chairman and Chief Executive Officer, President and Chief Operating Officer, and Chief Administrative Officer (collectively referred to as the "Office of the Chief Executive Officer" or "OCEO").<sup>33</sup> If the margin call imposed on an individual Clearing Member would exceed 100% an individual Clearing Member's net capital, the issue would be escalated to the OCEO, and each of the Executive Chairman, Chief Administrative Officer, and Chief Operating Officer would have the authority to determine whether OCC should continue calling for additional margin in excess of this amount. OCC believes that this notification and escalation process would enable OCC to appropriately require those Clearing Members that bring elevated risk exposures to OCC to bear the costs of those risks in the form of margin charges while also allowing OCC to take into consideration a particular Clearing Member's ability to meet the call based on its financial condition, and the amount of collateral it has available to pledge when certain pre-identified thresholds have been exceeded.

### ***(3). Sufficiency Stress Test Threshold 2 – Intra-Month Clearing Fund Resizing***

Under proposed Rule 1001(c) (and as described in the proposed Policy and Methodology Description), if a Sufficiency Stress Test were to identify a Clearing Fund Draw for any one or two Clearing Member Groups that exceed 90% of the current Clearing Fund size (after subtracting any monies deposited as a result of a margin call in accordance with a breach of Sufficiency Stress Test

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<sup>32</sup> OCC notes that, under the current FRMC Procedure, for the days prior to the collection of any Clearing Fund payments due that result from the re-sizing of the Clearing Fund on the first business day of the month, both the base Clearing Fund requirement and the Clearing Fund in effect are further reduced by any outstanding deficits. The proposed changes would clarify that upon the collection of funds to satisfy such deficits, any margin calls would be (1) released or (2) recalculated based on the current Clearing Fund Draw.

<sup>33</sup> OCC notes that, under its current FRMC Procedure, margin calls may be subject to a per-Clearing Member cap equal to the lesser of \$500 million or 100% of such Clearing Member's net capital; however, OCC's management retains discretion under the FRMC Procedure to call for additional margin beyond those amounts with certain reporting requirements when these caps are exceeded. Under the proposed Policy, these thresholds would no longer be characterized as "caps" and there would no longer be a requirement for reporting to OCC's Management Committee and Risk Committee as the \$500 million threshold would no longer function as a cap and the 100% of net capital threshold would now require escalation to the OCEO for approval of further margin calls. OCC believes the proposed changes to the reporting and approval process are appropriate given that (1) OCC management (typically an officer of OCEO) currently has discretion to waive any margin call caps, (2) under the proposal, these thresholds would no longer be characterized as caps and therefore there would be an assumption that OCC would call for margin in excess of these thresholds, (3) since the adoption of OCC's current FRMC Procedure, OCC has gained comfort in its Clearing Members' ability to meet and maintain margin calls in excess of these thresholds and (4) OCEO would retain the ability to notify or escalate an issue to the Risk Committee if they determine such actions are necessary.

Threshold 1), OCC would effect an intra-month resizing of the Clearing Fund to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its exposures under a wide range of stress scenarios, including extreme but plausible market conditions. The amount of such an increase would be the greater of: (1) \$1 billion or (2) 125% of the difference between the projected draw under the Sufficiency Stress Test (less any monies deposited pursuant to a margin call resulting from a breach of Sufficiency Stress Test Threshold 1) and the current Clearing Fund size. Each Clearing Member's proportionate share of the increase would be based on its proportionate share of the Clearing Fund as determined pursuant to proposed Rule 1003(a), with the exception of those Clearing Members subject to the minimum contribution amount. OCC's Executive Chairman, Chief Administrative Officer or Chief Operating Officer would be responsible for reviewing and approving any intra-month increase to the size of the Clearing Fund based on a breach of Sufficiency Stress Test Threshold 2 prior to implementation, and any such intra-month increase due to a breach of Sufficiency Stress Test Threshold 2 would remain in effect for any sizing calculations performed during the three month period subsequent to the intra-month increase to ensure that OCC continues to maintain sufficient financial resources to cover its credit exposures during that time.

In addition to intra-month resizing based on Sufficiency Stress Testing, OCC proposes to include additional authority in proposed Rule 1001(d) to provide the Risk Committee, or each of the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon notice to the Risk Committee, with the authority to increase the size of the Clearing Fund at any time for the protection of OCC, Clearing Members or the general public. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in Clearing Fund size would (1) be based upon then-existing facts and circumstances, (2) be in furtherance of the integrity of OCC and the stability of the financial system, and (3) take into consideration the legitimate interests of Clearing Members and market participants. Under the proposed Policy, any temporary increase in Clearing Fund size would be reviewed by the Risk Committee at its next regularly scheduled meeting, or as soon as otherwise practical, and, if such temporary increase is still in effect at the time of that meeting, the Risk Committee would determine whether (1) the increase in Clearing Fund size is no longer required or (2) the Clearing Fund sizing methodology should be modified to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its established risk tolerance.<sup>34</sup>

*(iv). Informational Stress Tests*

Under the proposed Policy and Methodology Description, OCC would run a variety of stress tests for informational purposes (i.e., Informational Stress Tests) to monitor and assess the size of OCC's Pre-Funded Financial Resources against other stress scenarios. The Informational Stress

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<sup>34</sup> In the event that the Risk Committee would determine to permanently increase or change the methodology used to size the Clearing Fund, OCC would initiate any regulatory approval process required to effect such a change in Clearing Fund size. However, OCC would not decrease the size of its Clearing Fund while the regulatory approvals for such permanent increase are being obtained to ensure that OCC continues to maintain sufficient financial resources during that time.

Tests could be comprised of a number of Historical and Hypothetical scenarios, which may include extreme but implausible scenarios and reverse stress test scenarios (i.e., “Informational Scenarios”). Informational Scenarios would not directly drive the size of the Clearing Fund or calls for additional margin; however, they would be an important risk monitoring tool that OCC would use to evaluate the appropriateness of its Adequacy, Sizing, and Sufficiency Scenarios and perform risk escalations and evaluations.

OCC would continually evaluate its inventory of Informational Scenarios and could add additional Informational Scenarios, as needed, to ensure that it understands the limits of its Pre-Funded Financial Resources. Scenarios may later be reclassified as a different scenario type with the approval of OCC’s Risk Committee. For instance, a new scenario would typically be introduced as an Informational Scenario, but later may be elevated to a Sizing or Sufficiency Scenario.

##### ***5. Clearing Fund and Stress Testing Governance, Monitoring and Review***

The proposed Policy would establish governance, monitoring and review requirements for OCC’s Clearing Fund and stress testing methodology. On a daily basis, STLRM would monitor the results of all of the Adequacy and Sufficiency Stress Tests, including whether the Adequacy Stress Test demonstrates that OCC maintains Pre-Funded Financial Resources above OCC’s Adequacy Scenarios, in accordance with internal OCC procedures. Under the proposed Policy, STLRM or the Executive Vice President of FRM (“EVP-FRM”) would immediately escalate any material issues identified with respect to the adequacy of OCC’s financial resources to the STWG (provided that STWG review is practical under the circumstances) and the Management Committee to determine if it would be appropriate to recommend a change to the Hypothetical Scenarios used to size the Clearing Fund in accordance with applicable OCC procedures.

Under the proposed Policy, on a monthly basis, STLRM would prepare reports that provide details and trend analysis of daily stress tests with respect to the Clearing Fund, including the results of daily Adequacy Stress Tests, Sizing Stress Tests and Sufficiency Stress Tests and review the adequacy of OCC’s financial resources in accordance with internal procedures. On a monthly basis, STWG would perform a comprehensive analysis of these stress testing results, as well as information related to the scenarios, models, parameters, and assumptions impacting the sizing of the Clearing Fund. Pursuant to this review, STWG would consider, and may recommend at its discretion, modifications to OCC’s stress test scenario inventory and models for financial resources (including the creation and/or retirement of stress test scenarios, the reclassification of stress test scenarios, and/or modifications to the stress test scenarios’ underlying parameters and assumptions), as well as related Policies and Procedures, to ensure their appropriateness for determining OCC’s required level of financial resources in light of current and evolving market conditions, and as pursuant to the related Procedures established for this purpose. The reviews would be conducted more frequently than monthly when the products cleared or markets served display high volatility or become less liquid; the size or concentration of positions held by OCC’s participants increases significantly; or as otherwise appropriate. The Policy would require that OCC maintain procedures

for determining whether, and in what circumstances, such intra-month reviews shall be conducted, and would indicate the persons responsible for making the determination.

Pursuant to the proposed Policy, STLRM would report the results of stress tests and its monthly analysis to OCC's Management Committee and Risk Committee on at least a monthly basis and would maintain procedures for determining whether, and in what circumstances, the results of stress tests must be reported to the Management Committee or the Risk Committee more frequently than monthly, and would indicate the persons responsible for making the determination. In the performance of monthly review of stress testing results and analysis and considering whether escalation is appropriate, due consideration would be given to the intended purpose of the proposed Policy to: (1) assess the adequacy of, and adjust as necessary, OCC's total amount of financial resources; (2) support compliance with the minimum financial resources requirements under applicable regulations; and (3) evaluate the adequacy of, and recommend adjustments to OCC's margin methodology, margin parameters, models used to generate margin or guaranty fund requirements, and any other relevant aspects of OCC's credit risk management.

Under the proposed Policy, OCC's Model Validation Group would be required to perform a model validation of OCC's Clearing Fund model on an annual basis, and the Risk Committee would be responsible for reviewing the model validation report. The Risk Committee would also be required to review and approve the Policy on an annual basis.

Under the proposed Policy, stress test inventories would be maintained by STLRM, and the STWG would be required to review and approve or recommend changes to stress test inventories recommended by STLRM staff in accordance with STWG procedures. The STWG would meet at least monthly and approve or recommend approval of changes to the inventory in accordance with the stress test procedures. The approval authority for such changes would be as follows:

- Informational Stress Tests – The STWG may approve the creation or retirement of Informational Stress Tests; and
- Sizing, Sufficiency, and Adequacy Stress Tests – The STWG may recommend approval to the Management Committee (however, if timing considerations make such recommendation to the Management Committee impracticable, then STWG would make its recommendation to the OCEO) and the Risk Committee the creation or retirement of Adequacy, Sizing, or Sufficiency Stress Tests

Pursuant to the proposed Policy, any request for an exception to the Policy must be made in writing to a member of the OCEO, who would then be responsible for reviewing the exception request and providing a decision in writing to the person requesting the exception. All requests for exceptions and their dispositions would be reported to the Board or Risk Committee no later than its next regularly scheduled meeting, in a format approved by the Chair of the Board or Risk Committee. Finally, the Policy would require that violations of the Policy be reported to the Policy owner and OCC's Chief Compliance Officer.

## **6. *Limitations on Reduction in Monthly Clearing Fund Size***

OCC also proposes to adopt rules imposing certain anti-procyclical measures for its monthly Clearing Fund sizing process. Under proposed Rule 1001(a), the size of the Clearing Fund would not be permitted to decrease more than 5% from month-to-month to avoid procyclicality. This limitation, which is also reflected in the proposed Policy and Methodology Description, is designed to promote stability and to prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the look-back period. OCC also would adopt Interpretation and Policy .01 to clarify that this restriction would not take effect for a period of one month following the adoption of the proposed change because OCC intends to apply to the new Clearing Fund sizing process going forward under the newly proposed methodology and not to the initial changes to OCC's Clearing Fund size resulting from the implementation of the new methodology.

In addition, if the results of a daily Sufficiency Stress Test over the final five business days preceding the monthly Clearing Fund sizing exceed 90% of the projected Clearing Fund size for the upcoming month, the Clearing Fund size must be set such that the peak Sufficiency Stress Test draw is no greater than 90% of the Clearing Fund size. The proposed change is designed to reduce the likelihood that the Clearing Fund would be set at a size such that a Clearing Member Group with stress test exposures that are trending upward at the end of the sizing period would exceed the threshold for an intra-month resize immediately following the decline.

## **7. *Clearing Fund Contribution Allocations***

### ***a. Proposed Changes to Initial Contributions***

Pursuant to existing Article VIII, Section 2 of the By-Laws, the minimum initial Clearing Fund contribution of each newly admitted Clearing Member is set at an amount equal to at least \$150,000, which is also equal to OCC's minimum "fixed" contribution amount (discussed in detail below). Under proposed Rule 1002(d), which is based on existing Article VIII, Section 2(a), OCC would increase the initial Clearing Fund contribution amount to \$500,000. OCC's existing minimum contribution requirements have been in place since June 5, 2000,<sup>35</sup> and as a result, OCC undertook an analysis to determine the appropriateness of this amount given the passage of time. As part of this analysis, OCC considered a number of factors such as the potential impact on Clearing Members that are at the minimum or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to

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<sup>35</sup> On June 5, 2000, OCC adopted a propose rule change to merge the equity and non-equity elements of its Clearing Fund into a combined Clearing Fund with a minimum contribution requirement of \$150,000. See Securities Exchange Act Release No. 42897 (June 5, 2000), 65 FR 36750 (June 9, 2000) (SR-OCC-99-9). OCC notes that, as a practical matter, the \$150,000 minimum contribution amount dates back prior to June 2000 for the majority of its Clearing Members as most members already contributed to both the equity and non-equity elements of the Clearing Fund and were subject to a \$75,000 minimum contribution for each element prior to the June 2000 rule change.

their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. For example, OCC notes that the minimum initial (and fixed) contribution requirement has remained static over time while the Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the proposed changes described herein. Additionally, OCC reviewed the contribution requirements of other CCPs and noted that they were well in excess of OCC's current minimum contribution requirement (and in several cases, would be in excess of the newly proposed minimum amount).<sup>36</sup> OCC also performed an analysis of Clearing Members that had a Clearing Fund contribution requirement larger than the current minimum requirement of \$150,000 but less than or equal to the proposed requirement of \$500,000.<sup>37</sup> OCC also reviewed the impact of this change and discussed it with potentially impacted Clearing Members firm, the majority of which did not express concerns over the proposed increase. As a result of this analysis, OCC determined \$500,000 would be the appropriate initial and minimum Clearing Fund contribution amount required to maintain membership at OCC. Consistent with existing authority, OCC's Risk Committee would also be able to fix a different initial contribution amount with regard to any new Clearing Member at the time its application is approved. In either case, the initial contribution amount would remain in effect for not more than three months after the admission of the relevant Clearing Member. After that time, or at an earlier time as may be determined by the Risk Committee, the Clearing Member's contribution amount would instead be determined using the allocated contribution method in proposed Rule 1003. OCC also proposes to clarify in new Rule 1002(d) that initial contribution requirements would at all times remain subject to the minimum "fixed amount" of \$500,000 under proposed Rule 1003 and to adjustments by OCC under Rule 1004.

***b. Proposed Changes to Contribution Allocation Methodology***

Current Rule 1001(b) provides, in part, that each Clearing Member's monthly contribution requirement is based on a sum of \$150,000 (which is a fixed amount, equal to the current initial contribution amount) plus such Clearing Member's proportionate share of the amount necessary for OCC to maintain the total Clearing Fund size required under Rule 1001(a) (which is a variable amount). OCC proposes to adopt new Rule 1003(a), which would increase the minimum "fixed" contribution amount to \$500,000, consistent with the proposed increase in the minimum initial contribution described above. Specifically, proposed Rule 1003(a) would provide that each Clearing Member's contribution to the Clearing Fund shall equal the sum of (x) \$500,000 (a higher "fixed amount," equal to the proposed initial contribution amount described above) and (y) such Clearing Member's proportionate share of an amount sufficient to cause the amount of the Clearing Fund

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<sup>36</sup> For example, at the time of OCC's analysis, ICE Clear US had a minimum contribution requirement of \$2,000,000 and CME had minimum contribution requirements of \$500,000 for exchange listed futures and options and \$2.5 million for OTC products covered in its Base Guaranty Fund.

<sup>37</sup> Based on this analysis, OCC determined that there are currently eleven Clearing Members either subject to the minimum Clearing Fund contribution requirement of \$150,000 or below the proposed \$500,000 requirement that would be impacted by the proposal.



(after taking into account each Clearing Member's fixed amount) to be equal to the Clearing Fund size determined pursuant to proposed Rule 1001(a) (the "variable amount"). The proposed change was determined under the same analysis and justification discussed above regarding the proposed change in the minimum initial contribution amount (i.e., OCC analyzed the potential impact on Clearing Members that are at the minimum fixed contribution amount or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory expectations on OCC given its status as a systemically important financial market utility). Collectively, proposed Rules 1002(d) and Rule 1003(a) would effectively provide for a new minimum Clearing Fund contribution amount of \$500,000 per Clearing Member.<sup>38</sup>

OCC also proposes to clarify in proposed Rule 1004, in line with its current operational practice, that OCC may adjust an individual Clearing Member's Clearing Fund contributions due to mergers, consolidations, position transfers, business expansions, membership approval, or other similar events in order to ensure that Clearing Fund allocations are appropriately aligned with the change in risks associated with such events (e.g., the increased risk a Clearing Member may present after taking on positions of another Clearing Member through a merger or position transfer).

## **8. Allocation Weighting Methodology**

Under existing Rule 1001(b), Clearing Fund contributions are allocated among Clearing Members based on a weighted average of each Clearing Member's proportionate share of total risk,<sup>39</sup> open interest, and volume in all accounts (including paired X-M accounts) according to the following weighting allocation methodology: 35% total risk, 50% open interest, and 15% volume. OCC proposes to modify its allocation methodology in new Rule 1003 to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they bring to OCC. Specifically, OCC proposes that Clearing Fund contribution requirements would be based on an allocation methodology of 70% total risk, 15% volume and 15% open interest.<sup>40</sup> OCC also proposes to modify the volume component of the weighting allocation methodology to provide that

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<sup>38</sup> OCC notes that the current exception for Futures-Only Affiliated Clearing Members in By-Law Article VIII, Section 2 and Rule 1001(f) would be retained under proposed Rules 1002(d) and 1002(f).

<sup>39</sup> As noted above, "total risk" in this context means the margin requirement with respect to all accounts of the Clearing Member Group exclusive of the net asset value of the positions in such accounts aggregated across all such accounts.

<sup>40</sup> Under the proposed Policy, this new allocation approach would be phased in over a three month period following implementation of the proposed changes herein by gradually shifting 35% of the weighting to total risk from open interest by 10% in the first month, 10% in the second month, and 15% in the third month. Accordingly, OCC proposes conforming changes to delete Interpretation and Policy .03 of Rule 1001, which concerns the phase-in of the former allocation methodology, and would no longer be required.

OCC would use cleared volume, as opposed to executed volume, to base the allocation on where the position is ultimately cleared.<sup>41</sup>

In addition, OCC proposes to adopt new Interpretation and Policy .02 of Rule 1003, which would be based without material amendment on the clauses in paragraphs (d) and (e) of current Rule 1001 that address how OTC options are included within the fraction used to compute a Clearing Member's proportionate share of open interest and volume, respectively. The numerator and denominator in each case would continue to include OTC option contracts within the number of open cleared contracts of a Clearing Member, with that number of OTC option contracts being adjusted to ensure that it is approximately equal to the number of options contracts, other than OTC option contracts, that would cover the same notional value or units of the same underlying interest. OCC believes that placing this aspect of the computation in an Interpretation and Policy would enhance the readability of Rule 1003(b).

OCC's contribution allocation and associated weighting methodology also would be generally described in the proposed Policy and Methodology Description documents.

### ***9. Reduction in Time to Fund Deficits***

OCC proposes to adopt new Rule 1005(a), which would address the time within which a Clearing Member would generally be required to satisfy a deficit in its required Clearing Fund contribution to reduce the timeframe during which OCC potentially would be operating with less than its required amount of Pre-Funded Financial Resources. As a general rule, whenever a report made available by OCC as described in proposed Rule 1007 shows a deficit, the applicable Clearing Member(s) would be required to satisfy the deficit in a form approved by OCC no later than one hour after being notified by OCC of such deficit. Examples of deficits that would need to be satisfied by this deadline include those caused by a decrease in the value of a Clearing Member's contribution or by an adjusted contribution pursuant to proposed Rule 1004. The one-hour deadline would be subject to the application of alternative timing requirements specified in Chapter X, such as in the case of deficits arising due to regular monthly sizing or an intra-month resizing (as addressed in proposed Rule 1005(b)), and deficits arising due to amendments of OCC's Rules (as addressed in proposed Rule 1002(e)). Proposed Rule 1004 would also provide OCC with discretion to agree to alternative written terms regarding the satisfaction of a deficit that would otherwise be governed by the requirements described above.

Proposed Rule 1005(b), which is based on existing Rule 1003 with certain modifications, would address deficits arising due to regular monthly sizing of the Clearing Fund under proposed

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<sup>41</sup> For both volume and open interest, OCC would adjust stock loan shares by a factor of 100 to normalize them with the size of a standard option contract. Interpretation and Policy .04 of existing Rule 1001, which concerns the calculation used to determine cleared contract equivalent units for stock loan and borrow positions, would be relocated to Interpretation and Policy .01 of proposed Rule 1003 without change.

Rule 1001(a), as well as due to intra-month sizing adjustments under proposed Rule 1001(c). The proposed provision would reduce the amount of time within which a Clearing Member must satisfy a deficit shown on a report made available by OCC under Rule 1007 from five business days of the date on which the report is made available to two business days of such date. OCC believes that this change is appropriate because it would expedite adjustment of Clearing Fund contributions to the appropriate size as determined by OCC and allow OCC to respond more quickly in rapidly changing or emergency market conditions.

Proposed Rule 1002(e) would address the circumstance in which a Clearing Member's contribution is increased as a result of an amendment of OCC's Rules. The proposed provision is based on existing By-Law Article VIII, Section 2(b), modified, however, to require that such an increased contribution be satisfied within two business days of the Clearing Member receiving notice of the amendment, rather than within five business days of such notice (as is required under current By-Law Article VII, Section 2(b)). For the reasons noted above, OCC believes that this change is appropriate because it would expedite both the effectiveness of the increased contribution requirement (and, indirectly, the size of the Clearing Fund) and the actual funding of Clearing Member contributions related thereto. Consistent with OCC's current requirement, a Clearing Member would not be obligated to make such an increased contribution, however, if, before the effective date of the relevant amendment, it notifies OCC in writing that it is terminating its status as a Clearing Member and closes out or transfers all of its open long and short positions. In addition, newly proposed Interpretation and Policy .02 of Rule 1002 would clarify that the authority of a Clearing Member to terminate its status as such under Rule 1006(h) regarding assessments by OCC is separate and distinct from the analogous authority under Rule 1002(e) concerning membership terminations in connection with an increase in Clearing Fund contributions due to a change in OCC's Rules.

In addition, and consistent with existing operational practice, new Rule 1005(c) would establish that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. The proposed rule change is designed to ensure that OCC is able to obtain funds owed from its Clearing Members to satisfy a Clearing Fund deficit in a timely fashion so that OCC can continue to meet its overall financial resource requirements as stipulated under its rules and by applicable regulatory requirements. Any such withdrawn amount would thereafter be treated as a cash contribution to the Clearing Fund. The provision would also clarify that, if OCC is unable to withdraw an amount equal to the deficit, the Clearing Member's failure to satisfy such deficit in accordance with OCC's Rules may subject such Clearing Member to disciplinary action or suspension, including under Chapters XI and XII of OCC's Rules.

OCC also proposes to specify in proposed Rules 1005(b) and 1002(e) that Clearing Members shall have until 9:00AM Central Time on the second business day after the issuance of the Clearing Fund Status Report to meet their required Clearing Fund contribution if such contribution increases as a result of monthly Clearing Fund sizing or an intra-month resizing of the Clearing Fund. The

proposed change would more closely align with the settlement time for the collection of other deficits (e.g., the required time for making good any deficiency generally under existing Article VIII, Section 6 of the By-Laws or for satisfying any margin deficits under Rule 605). The proposed change would also be reflected in the proposed Policy.

Finally, OCC proposes to relocate the substance of current Rule 1002 (regarding Clearing Fund reports) to proposed Rule 1007, with modifications that allow OCC to provide more real-time transparency to Clearing Members by mandating more frequent reporting, as well as certain modifications to address the intra-month resizing of the Clearing Fund. Current Rule 1002 provides that OCC must make available to each Clearing Member, within ten days after the close of each calendar month, a report that lists the current amount and form of such Clearing Member's contribution, the amount of the contribution required of such Clearing Member for the current calendar month, and any surplus over and above the amount required for the current calendar month. Under proposed Rule 1007, OCC would make available each business day certain reports listing the current amount and form of each Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member (including the Clearing Member's required cash contribution to the Clearing Fund, as discussed in more detail in Section 11 below) and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. OCC would also issue a report whenever the calculated size of the Clearing Fund has changed, whether as the result of regular monthly sizing of the Clearing Fund or otherwise.

#### ***10. Anti-Procyclicality Measures in OCC's Margin Methodology***

OCC proposes to amend current Rule 601(c), regarding margin requirements for accounts other than customers' accounts and firm non-lien accounts, to clarify in OCC's Rules that OCC's existing methodology for calculating margin requirements incorporates measures designed to ensure that margin requirements are not lower than those that would be calculated using volatility estimated over a historical look-back period of at least ten years. The proposed change reflects an existing practice in OCC's margin methodology and is intended only to provide more clarity and transparency regarding this anti-procyclicality measure in OCC's Rules.

#### ***11. Other Clarifying, Conforming, and Organizational Changes***

OCC also proposes a number of other clarifying, conforming, and organizational changes to its By-Laws, Rules, Collateral Risk Management Policy, Default Management Policy, and Clearing Fund-related procedures in connection with the proposed enhancements to its Pre-Funded Financial Resources and the relocation of OCC's Clearing Fund-related By-Laws into Chapter X of the Rules. Specifically, proposed Rules 1006(a)–(c) would address both the purpose of the Clearing Fund and the seven conditions under which the Clearing Fund generally may be used by OCC to make good certain losses that it suffers. The proposed Rule is based on a consolidation of existing Article VIII, Section 1(a) (concerning the maintenance and purpose of the Clearing Fund) and Section 5(a)–(c) (concerning the application of the Clearing Fund) with minor modifications. Accordingly, under proposed Rule 1006, and consistent with existing authority, OCC would maintain, and be permitted

to use, the Clearing Fund to make good losses relating to: (1) the failure of a Clearing Member to discharge an obligation on or arising from any confirmed trade accepted by OCC; (2) the failure of any Clearing Member or the Canadian Depository for Securities to perform its obligations under or arising from any exercised or assigned option contract or matured future or any other contract or obligation issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable;<sup>42</sup> (3) the failure of any Clearing Member in respect of its stock loan or borrow positions to perform its obligations to OCC; (4) any liquidation of a Clearing Member's open positions; (5) any protective transactions effected for OCC's own account under Chapter XI of the Rules regarding the suspension of a Clearing Member; (6) the failure of any Clearing Member to make any required payment or render any required performance; or (7) the failure of any bank or securities or commodities clearing organization to perform obligations to OCC under certain conditions as set forth in proposed Rule 1006(c).<sup>43</sup>

Proposed Rule 1006(g) would address payments to and from Cross-Guaranty Parties<sup>44</sup> in respect of Common Members.<sup>45</sup> This provision is based on current Article VIII, Sections 5(f) and 5(g) of OCC's By-Laws, which would be transferred to Rule 1006(g) without material changes. OCC would, therefore, continue to use a suspended Clearing Member's Clearing Fund contribution, after appropriately applying other funds in the accounts of the Clearing Member, to make a required payment to a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of such Clearing Member. Proposed Rule 1006(g) would clarify, however, that OCC would credit funds to the Clearing Fund that it receives in respect of a suspended Clearing Member from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement, where OCC must still make a charge on a proportionate basis against other Clearing Members' required contributions to the Clearing Fund even after application of such funds, or where OCC has already made a charge on a proportionate basis against other Clearing Members' required contributions to the Clearing Fund.

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<sup>42</sup> OCC notes that proposed Rule 1006(a) would contain a minor modification to clarify that matured futures contracts are included within the scope of other contracts or obligations issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable.

<sup>43</sup> Existing Interpretation and Policy .01 and .02 of Article VIII, Section 5 concerning the share of any deficiency to be borne by each Clearing Member as a result of a charge against the Clearing Fund would be consolidated and relocated to new Interpretation and Policy .01 of Rule 1006 with only minor, non-substantive conforming changes and cross-references to new Interpretation and Policy .01 of Rule 1006 would be added to proposed Rules 1006(b) and (c) to provide additional clarity in OCC's rules.

<sup>44</sup> A Cross-Guaranty Party is a party, other than OCC, to a Limited Cross Guaranty Agreement, which is an agreement between OCC and one or more other clearing corporations and/or clearing organizations relating to the cross-guaranty by OCC and the other party or parties of certain obligations of a suspended Common Member to the parties to the agreement. See Article I, Section 1.C.(35) of the By-Laws (defining Cross-Guaranty Party) and Section 1.L.(4) (defining Limited Cross-Guaranty Agreement).

<sup>45</sup> A Common Member is "a Clearing Member that is concurrently a member or participant of a Cross-Guaranty Party." See Article I, Section 1.C.(27) of the By-Laws.

Proposed Interpretation and Policy .02–.04 to Rule 1006 would also address certain aspects of payments to and from Cross-Guaranty Parties in respect of Common Members. All of these proposed provisions are based without material amendment on existing Interpretations and Policies to Article VIII, Section 5 of OCC’s By-Laws, as described below.

Proposed Interpretation and Policy .02 to Rule 1006 is based without material amendment on existing Interpretation and Policy .03 to Article VIII, Section 5 of OCC’s By-Laws. Under the proposed Interpretation and Policy, if OCC has a deficiency after it applies all the available funds of a suspended Common Member but cannot determine whether, when, or in what amount it will be entitled under a Limited Cross-Guaranty Agreement to receive funds from a Cross-Guaranty Party, OCC may make a charge against other Clearing Members’ contributions for the deficiency in accordance with Rule 1006(b). If OCC receives funds from a Cross-Guaranty Party after making such a charge, OCC would credit the funds to the Clearing Fund in accordance with Rule 1006(g).

Proposed Interpretation and Policy .03 to Rule 1006 is based without material amendment on existing Interpretation and Policy .04 to Article VIII, Section 5 of OCC’s By-Laws. Under the proposed Interpretation and Policy, if OCC has a deficiency after it applies all the available funds of a suspended Common Member and OCC determines that it is likely to receive funds from a Cross-Guaranty Party under a Limited Cross-Guaranty Agreement, OCC may, in anticipation of receipt of such funds, forego making a charge, or make a reduced charge in accordance with proposed Rule 1006(b), against other Clearing Members’ Clearing Fund contributions. If OCC does not subsequently receive the funds or receives a smaller amount than anticipated, OCC may make a charge or additional charges against contributions in accordance with proposed Rule 1006(b).

Proposed Interpretation and Policy .04 to Rule 1006 is based without material amendment on existing Interpretation and Policy .05 to Article VIII, Section 5 of OCC’s By-Laws. Under the proposed Interpretation and Policy, if, under a Limited Cross-Guaranty Agreement, OCC receives funds from a Cross-Guaranty Party in respect of a suspended Common Member but is subsequently required to return such funds for any reason, OCC may make itself whole by making a charge or additional charges, as the case may be, against the contributions of Clearing Members, other than the suspended Common Member.

Existing Article VIII, Section 1(b) of OCC’s By-Laws, which concerns the general lien on all cash, Government securities, and other property of the Clearing Member contributed to the Clearing Fund, would be moved without material change to new Rule 1006(i). Additionally, existing Interpretation and Policy .02 of Article VIII, Section 3 of OCC’s By-Laws, which concerns the treatment of securities deposited in an account of OCC at an approved custodian, would be relocated to new Rule 1006(j) without change.

OCC also proposes to relocate existing Article VIII, Sections 5(c), and (e) of OCC’s By-Laws, which concern notice of any charges against the Clearing Fund, the use of current and retained earnings to address losses, and the use of the Clearing Fund to effect borrowings, to new

Rules 1006(d), (e), and (f),<sup>46</sup> respectively, without material amendment.<sup>47</sup> OCC would also relocate existing Article VIII, Section 6 of OCC's By-Laws, which concerns the making good of any charges against the Clearing Fund (i.e., Clearing Fund replenishment and assessments) to new Rule 1006(h) without material changes.<sup>48</sup> The proposed Policy and Methodology Description would also contain a discussion of OCC's Clearing Fund replenishment and assessment powers generally intended to reflect this existing authority in the By-Laws. In addition, the proposed Policy would (1) provide the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer with the authority to approve proportionate charges against the Clearing Fund and (2) require that OCC's Accounting department maintain procedures for the allocation of losses due to a Clearing Member default and to replenish the Clearing Fund in the event a deficiency in the Clearing Fund results from events other than those specified in proposed Rule 1006.

Additionally, OCC proposes to update certain cross references in the definition of "Clearing Fund" in Article I of the By-Laws; Article V, Section 3 of the By-Laws; and Article VI, Section 27 of the By-Laws to reflect the fact that OCC's Clearing Fund-related provisions would now be contained in Chapter X of the Rules. In addition, OCC proposes to change references to "Chapter 11" of the Rules in Article VI, Section 27 of OCC's By-Laws to "Chapter XI" To conform the references to OCC's Rules. OCC proposes conforming changes to Rule 1106 to reflect the reorganization of Article VIII of the By-Laws into Chapter X of the Rules. OCC also proposes to amend Rule 609 to change the term "securities" to "contracts" to clarify that its authority to call for intra-day margin also applies to non-securities products cleared by OCC.

OCC also proposes conforming changes to delete existing Interpretations and Policies .02 and .03 of Rule 1001, which deal with the minimum confidence level used to size the Clearing Fund and the phase-in of the former weighting allocation methodology, respectively. Under the proposed change, the confidence level used to size the Clearing Fund and the phase-in of the proposed weighting allocation methodology would be addressed in the Policy and Methodology Description (as described above). As a result, these Interpretations and Policies would no longer be needed.

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<sup>46</sup> Under clause (i) of new Rule 1006(f), OCC would also be permitted to take possession of Government securities in anticipation of a potential default by or suspension of a Clearing Member, as is currently the case under existing Interpretation and Policy .06 to Article VIII, Section 5.

<sup>47</sup> OCC notes that it would make a number of non-substantive clarifying changes to the rule text in proposed Rule 1006 so that existing rule text referencing "computed contributions to the Clearing Fund" and "as fixed at the time" would be rephrased as "required contributions to the Clearing Fund" and "as calculated at the time." The proposed change is designed to more accurately reflect that these rules are intended to refer to a Clearing Member's required Clearing Fund contribution amount as calculated under the proposed Rules, Policy and Methodology Description and eliminate any potential confusion with a Clearing Member's "fixed amount" as determined under Rule 1003(a).

<sup>48</sup> OCC notes that it would modify the rule text in question to clarify that a Clearing Member's obligation to make good the deficiency in its Clearing Fund contribution, resulting from a proportionate charge or otherwise, would be in relation to its currently "required" contribution amount and not the amount of the contribution on deposit as of the time of the charge.

In addition, consistent with its effort to aggregate all Clearing Fund-related provisions to Chapter X of the Rules, OCC proposes to relocate Article VIII, Sections 7 (Contribution Refund) and 8 (Recovery of Loss) of the By-Laws to new Rules 1009, and 1010, respectively, without material amendment.

OCC also proposes to relocate certain By-Law provisions related to the form and method of Clearing Fund contributions into Chapter X of the Rules. Specifically, OCC proposes to relocate Article VIII, Section 3(a) and (c); Interpretation and Policy .04 to Article VIII, Section 3; and Article VIII, Section 4 to proposed Rule 1002 concerning Clearing Fund contributions. These By-Law provisions would be relocated to Chapter X of the Rules without material amendment. OCC also would relocate Interpretation and Policy .01 to Rule 1001 concerning minimum Clearing Fund size into new Rule 1001(b). The form and method of OCC's Clearing Fund contributions also would be generally described in the proposed Policy and Methodology Description documents. In addition, and consistent with current OCC practice, the proposed Policy would impose a requirement that the specific securities eligible to be used as Clearing Fund contributions be permitted to be pledged in exchange for cash through one of OCC's committed liquidity facilities so that OCC continues to maintain sufficient eligible securities to fully access such facilities.

As noted above, under proposed Rule 1007, OCC would make available on a daily basis certain reports listing the current amount and form of each Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member, and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. Proposed Rule 1007 would also include reporting on the Clearing Member's required cash contribution to the Clearing Fund.

OCC also proposes to relocate existing Rule 1004 (Withdrawals) to new Rule 1008 and would modify the proposed rule to reflect that Clearing Members may withdraw excess Clearing Fund deposits on the same day that OCC issues a report to the Clearing Member showing a surplus (as opposed to the following business day), which is consistent with current operational practices.

In addition, OCC proposes to update references to Article VIII of the By-Laws in its Collateral Risk Management Policy and Default Management Policy to reflect the relocation of OCC's Clearing Fund-related By-Laws into Chapter X of the Rules.

Finally, OCC currently maintains procedures regarding its processes for (i) the monthly resizing of its Clearing Fund (Monthly Clearing Fund Sizing Procedure), (ii) the addition of financial resources through intra-day margin calls and/or an intra-month increase of the Clearing Fund to ensure that it maintains adequate financial resources in the event of a default of a Clearing Member/Clearing Members Group presenting the largest exposure to OCC (FRMC Procedure), and (iii) the execution of any intra-month resizing of the Clearing Fund (Clearing Fund Intra-Month Re-



sizing Procedure).<sup>49</sup> OCC proposes to retire its existing Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure as these procedures would no longer be relevant to OCC's proposed Clearing Fund and stress test methodology and would be replaced by the proposed Rules, Policy and Methodology Description described herein.

OCC's Monthly Clearing Fund Sizing Procedure provides that the Clearing Fund is resized on the first business day of each month by identifying the peak five-day rolling average of Clearing Fund Draws (using OCC's current Clearing Fund methodology) over the most recent three-month period. This peak five-day rolling average is supplemented with a prudential margin of safety of \$1.8 billion. The Monthly Clearing Fund Sizing Procedure further describes the internal procedural and administrative steps taken by OCC staff in the monthly Clearing Fund sizing processes (e.g., the internal reports and processes used to populate relevant data and calculate the monthly Clearing Fund size and the internal reporting and notifications made by OCC staff during the resizing process). Under the proposed Policy and Methodology Description, OCC would continue to determine the Clearing Fund size for a given month by using a peak five-day rolling average of Clearing Fund Draws over the prior three months; however, these calculations would be done using the proposed Sizing Stress Test results and would no longer require a prudential margin of safety.<sup>50</sup>

OCC's FRMC Procedure outlines various responsibilities, deliverables and communications with respect to OCC's financial resource monitoring and resource call processes. While the FRMC Procedure describes material aspects of OCC's current financial resource monitoring and call-related operations, it also describes the non-material procedural and administrative steps taken by OCC staff in carrying out these processes. For example, the FRMC Procedure contains procedural steps for (1) comparing Clearing Fund Draws against the Clearing Fund size and determining whether applicable thresholds are breached, (2) internal notifications and reporting within OCC regarding the imposition of enhanced monitoring or recommendations for margin calls or intra-month resizing of the Clearing Fund,<sup>51</sup> (3) other external communications to Clearing Members<sup>52</sup> regarding margin calls, and (4) determining whether a cash draft is required to satisfy a deficit resulting from a margin call. Under the proposal, the proposed Policy would continue to describe the material aspects of OCC's Clearing Fund operations as they relate to the financial resource monitoring and resource call

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<sup>49</sup> See supra note 9.

<sup>50</sup> See supra note 18.

<sup>51</sup> OCC notes that the weekly reporting process currently described in the FRMC Procedure would no longer be codified in the "rules" of OCC; however, the proposed Policy would establish new governance, monitoring and review requirements for OCC's Clearing Fund and stress testing methodology, which are described in detail above.

<sup>52</sup> The proposed Policy would contain a general requirement that Clearing Members be notified of any intra-day margin calls under the policy but the procedural details of such notification would be contained in the Clearing Fund Sufficiency Monitoring Procedure.

process under the new Clearing Fund and stress testing methodology, subject to a number of modifications describe above.<sup>53</sup>

OCC's Clearing Fund Intra-Month Re-sizing Procedure outlines the various internal responsibilities, deliverables and communications with respect to an intra-month re-sizing the Clearing Fund as determined under the FRMC Procedure. The procedure describes the procedural and administrative steps taken by OCC staff in the intra-month resizing process, including the procedural steps for (1) calculating increased contribution requirements based on various internal reports and processes, (2) preparing information memoranda announcing an intra-month resizing, (3) internal notifications and reporting within OCC regarding an intra-month resizing, (4) other external communications to Clearing Members<sup>54</sup> and OCC's regulators regarding an intra-month resizing of the Clearing Fund, and (5) determining whether a cash draft is required to satisfy a deficit resulting from an intra-month resizing of the Clearing Fund.

OCC would adopt new internal procedures to address the procedural and administrative steps associated with the monthly Clearing Fund sizing, Clearing Fund sufficiency monitoring, and intra-month resizing processes; however, these procedures would not be filed as "rules" of OCC. These procedures also would conform to the proposed changes described herein

OCC reviewed the DCO Core Principles as set forth in the Act. During this review, OCC identified the following Core Principles as potentially being impacted:

**Financial resources.** OCC believes that implementing the proposed rule change would be consistent with the Core Principle B,<sup>55</sup> which requires, in part, that each DCO possesses financial resources that, at a minimum, exceed the total amount that would enable it to meet its financial obligations to its members and participants notwithstanding a default by the member or participant creating the largest financial exposure for that organization in extreme but plausible market conditions. CFTC Regulation 39.11(c)(1)<sup>56</sup> further provides, in part, that a DCO shall, on a monthly basis, perform stress testing that will allow it to make a reasonable calculation of such financial resources using a methodology that takes into account both historical data and hypothetical scenarios.

The proposed changes to OCC's By-Laws, Rules and Clearing Fund and stress testing methodology would allow OCC to maintain sufficient financial resources to enable it to meet its financial obligations to its Clearing Members notwithstanding a default by the Clearing Member

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<sup>53</sup> See e.g., supra notes 29-33 and associated text.

<sup>54</sup> The proposed Policy would contain a general requirement that Clearing Members, OCC's Risk Committee, and OCC's regulators be notified of any intra-month Clearing Fund resizing but the procedural details of such notification would be contained in the Clearing Fund Sizing Procedure.

<sup>55</sup> 7 U.S.C. 7a-1(c)(2)(B).

<sup>56</sup> 17 CFR 39.11(c)(1).

creating the largest financial exposure for OCC in extreme but plausible market conditions. In order to achieve this, OCC proposes to establish a risk tolerance with regard to the sizing of the Clearing Fund equal to a 1-in-50 year hypothetical market event, which OCC believes represents the outer range of extreme but plausible scenarios for OCC's cleared products. In order to ensure sufficient coverage of this risk tolerance and to guard against intra-month scenario volatility and procyclicality, OCC proposes to size its Clearing Fund based on a more conservative 1-in-80 year hypothetical market event (i.e., the Sizing Stress Tests) on a Cover 2 Standard. The proposed changes are designed to size the Clearing Fund at a level that would be expected to cover OCC's potential exposures under extreme but plausible market conditions. In addition, OCC's Rules, Policy, and Methodology Description would provide for the collection of additional resources on an intra-month basis if certain Sufficiency Scenario thresholds are breached, as discussed in more detail above. These stress tests are designed, in total, to result in the collection of sufficient Pre-Funded Financial Resources (which by definition in the Policy would exclude OCC's replenishment and assessment powers), and when necessary call for additional financial resources, to cover a wide range of stress scenarios, including extreme but plausible market conditions.

Additionally, the proposed changes to avoid procyclicality in the Clearing Fund (e.g., preventing the Clearing Fund from decreasing more than 5% from month-to-month and using a three-month look back period in sizing the Clearing Fund) are designed to promote stability and to prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the look-back period. OCC believes that this conservative approach to anti-procyclicality would help to ensure that OCC continues to maintain adequate Pre-Funded Financial Resources during periods where volatility decreases significantly, market conditions change rapidly, or Clearing Member business activity causes a significant decrease in stress test results. OCC further believes that the proposed changes to its Rules to generally reduce the timeframe in which Clearing Members must meet deficits in their Clearing Fund contributions are appropriate because it would expedite the adjustment of Clearing Fund contributions to the appropriate size as determined by OCC's new Clearing Fund and stress test methodology, thereby allowing the Clearing Fund to respond more quickly in rapidly changing or emergency market conditions. Moreover, consistent with existing operational practice, new Rule 1005(c) would establish that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. The proposed changes are designed to ensure that OCC is able to obtain funds owed from its Clearing Members in a timely fashion so that OCC can continue to meet its overall financial resource requirements

OCC also proposes to adopt a new stress testing methodology, as described in the proposed Policy and Methodology Description, to enable OCC to conduct a variety of Sizing Stress Tests, Adequacy Stress Tests, Sufficiency Stress Tests and Informational Stress Tests, each of which play different but complementary roles in promoting OCC's ability to more robustly identify, measure, monitor and manage its credit risks to its participants. These stress tests would be run on a daily basis using standard predetermined parameters and assumptions and would allow OCC to test the adequacy and sufficiency of its Pre-Funded Financial Resources under a wide range of Historical

and Hypothetical Scenarios, which take into account stresses on a number of factors such as price and volatility. For example, the proposed methodology would allow OCC to test the adequacy of OCC's Pre-Funded Financial Resources with respect to its proposed risk tolerance. The proposed Clearing Fund and stress testing methodology would also use Sufficiency Stress Tests to determine whether OCC should call for additional collateral to ensure that it consistently maintains sufficient financial resources. OCC believes that the proposed changes are therefore designed to ensure that, on a monthly basis, OCC performs stress testing that will allow it to make a reasonable calculation of its required financial resources using a methodology that takes into account both historical data and hypothetical scenarios.

Taken together, OCC believes the proposed changes are reasonably designed so that OCC can measure and manage its credit exposure to its participants through the maintenance of additional financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions. In addition the proposed changes would enable to perform daily stress testing that will allow it to make a reasonable calculation of its required financial resources using a methodology that takes into account both historical data and hypothetical scenarios. In turn, these stress tests would enable OCC to more effectively design margin and Clearing Fund requirements that are calibrated to cover Clearing Member defaults under such scenarios. For these reasons, OCC believes the proposed changes would help to ensure that OCC maintains sufficient resources to meet its financial resource requirements under Core Principle B.

**Public information.** OCC believes that implementing the proposed rule change will be consistent with the Core Principle L, which requires, among other things, that each DCO provide to market participants sufficient information to enable the market participants to identify and evaluate accurately the risks and costs associated with using the services of the DCO and to make information concerning the rules and operating procedures governing the clearing and settlement systems of the DCO available to market participants.<sup>57</sup> OCC believes that the proposed clarifying, conforming, and organizational changes to its By-Laws and Rules are designed to provide Clearing Members with enhanced transparency and clarity regarding their obligations associated with the Clearing Fund. As a result, OCC believes implementing the proposed changes would provide additional clarity, transparency, and information concerning the rules and operating procedures governing OCC's Clearing Fund and help to provide sufficient information to enable market participants to identify and evaluate accurately the risks and costs associated with using the services of OCC in a manner consistent with Core Principle L.

In this regard, the proposed changes would further OCC's compliance with Core Principles B and L.

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<sup>57</sup> See 7 U.S.C. 7a-1(c)(2)(L)(i) and (ii).

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 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 rule set forth at Item 1 of the enclosed filing complies with the Act and the CFTC's regulations thereunder.

Should you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. P. Kamnik', written in a cursive style.

Joseph P. Kamnik  
Senior Vice President and Chief Regulatory Counsel

Enclosure

Required fields are shown with yellow backgrounds and asterisks.

Page 1 of * 411	SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4		File No.* SR - 2018 - * 008	Amendment No. (req. for Amendments *)
Filing by Options Clearing Corporation Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934				
Initial * <input checked="" type="checkbox"/>	Amendment * <input type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input checked="" type="checkbox"/>	Section 19(b)(3)(A) * <input type="checkbox"/>
			Section 19(b)(3)(B) * <input type="checkbox"/>	
			Rule	
Pilot <input type="checkbox"/>	Extension of Time Period for Commission Action * <input type="checkbox"/>	Date Expires * <input type="text"/>	<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)
			<input type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)
			<input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(6)
Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010			Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934	
Section 806(e)(1) * <input type="checkbox"/>		Section 806(e)(2) * <input type="checkbox"/>	Section 3C(b)(2) * <input type="checkbox"/>	
Exhibit 2 Sent As Paper Document <input type="checkbox"/>	Exhibit 3 Sent As Paper Document <input type="checkbox"/>			
<b>Description</b>				
Provide a brief description of the action (limit 250 characters, required when Initial is checked *).				
<input type="text" value="Proposed rule change concerning enhancements to The Options Clearing Corporation's stress testing and Clearing Fund methodology."/>				
<b>Contact Information</b>				
Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.				
First Name *	<input type="text" value="Justin"/>	Last Name *	<input type="text" value="Byrne"/>	
Title *	<input type="text" value="Vice President, Regulatory Filings"/>			
E-mail *	<input type="text" value="jbyrne@theocc.com"/>			
Telephone *	<input type="text" value="(202) 971-7238"/>	Fax	<input type="text" value="(312) 322-6280"/>	
<b>Signature</b>				
Pursuant to the requirements of the Securities Exchange Act of 1934,				
has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.				
(Title *)				
Date	<input type="text" value="05/30/2018"/>	<input type="text" value="Vice President, Regulatory Filings"/>		
By	<input type="text" value="Justin W. Byrne"/>	<input type="text" value="Justin W. Byrne"/>		
(Name *)				
NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.				
<input type="button" value="Justin Byrne, jbyrne@theocc.com"/>				

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFF website.

**Form 19b-4 Information \***

Add Remove View

The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

Add Remove View

The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications**

Add Remove View

Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire**

Add Remove View

Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

Add Remove View

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

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

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Form 19b-4

Proposed Rule Change  
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 by The Options Clearing Corporation (“OCC”) concerns proposed changes to OCC’s By-Laws and Rules, the formalization of a substantially new Clearing Fund Methodology Policy (“Policy”), and the adoption of a document describing OCC’s new Clearing Fund and stress testing methodology (“Methodology Description”). The proposed changes are primarily designed to enhance OCC’s overall resiliency, particularly with respect to the level of OCC’s pre-funded financial resources. Specifically, the proposed changes would:

- (1) reorganize, restate, and consolidate the provisions of OCC’s By-Laws and Rules relating to the Clearing Fund into a newly revised Chapter X of OCC’s Rules;
- (2) modify the coverage level of OCC’s Clearing Fund sizing requirement to protect OCC against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions (i.e., adopt a “Cover 2 Standard” for sizing the Clearing Fund);
- (3) adopt a new risk tolerance for OCC to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period;
- (4) adopt a new Clearing Fund and stress testing methodology, which would be underpinned by a new scenario-based one-factor risk model stress testing approach, as detailed in the newly proposed Policy and Methodology Description;
- (5) document governance, monitoring, and review processes related to Clearing Fund and stress testing;

(6) provide for certain anti-procyclical limitations on the reduction in Clearing Fund size from month to month;

(7) increase the minimum Clearing Fund contribution requirement for Clearing Members to \$500,000;

(8) modify OCC's allocation weighting methodology for Clearing Fund contributions;

(9) reduce from five to two business days the timeframe within which Clearing Members are required to fund Clearing Fund deficits due to monthly or intra-month resizing or due to Rule amendments;

(10) provide additional clarity in OCC's Rules regarding certain anti-procyclicality measures in OCC's margin model; and

(11) make a number of other non-substantive clarifying, conforming, and organizational changes to OCC's By-Laws, Rules, Collateral Risk Management Policy, Default Management Policy, and filed procedures, including retiring OCC's existing Clearing Fund Intra-Month Re-sizing Procedure, Financial Resources Monitoring and Call Procedure ("FRMC Procedure"), and Monthly Clearing Fund Sizing Procedure, as these procedures would no longer be relevant to OCC's proposed Clearing Fund and stress testing methodology and would be replaced by the proposed Rules, Policy, and Methodology Description described herein.

The proposed amendments to OCC's By-Laws and Rules can be found in Exhibits 5A and 5B, respectively. Material proposed to be added to OCC's By-Laws and Rules as currently in effect is marked by underlining, and material proposed to be deleted is marked in

strikethrough text.<sup>1</sup> As proposed, existing Chapter X would be deleted and replaced with new Chapter X in its entirety, as set forth in Exhibit 5B.

The proposed Policy and Methodology Description have been submitted in Exhibits 5C and 5D, respectively, and have been submitted without marking to facilitate review and readability of the documents as they are being submitted in their entirety as new rule text.<sup>2</sup>

The Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure can be found in Exhibits 5E, 5F and 5G, respectively, with the deletion (or retirement) of these procedures indicated by strikethrough text.

The proposed changes to OCC's Collateral Risk Management Policy and Default Management Policy can be found in Exhibits 5H and 5I, respectively. Material proposed to be added to the policies as currently in effect is marked by underlining, and material proposed to be deleted is marked in strikethrough text.

All terms with initial capitalization not defined herein have the same meaning as set forth in OCC's By-Laws and Rules.<sup>3</sup>

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<sup>1</sup> OCC recently proposed changes to Article VIII of its By-Laws in connection with advance notice and proposed rule change filings related to enhanced and new tools for recovery scenarios. See Securities Exchange Act Release No. 82351 (December 19, 2017), 82 FR 61107 (December 26, 2017) (SR-OCC-2017-020) and Securities Exchange Act Release No. 82513 (January 17, 2018), 83 FR 3244 (January 23, 2018) (SR-OCC-2017-809). The proposed changes currently pending Commission review in SR-OCC-2017-020 and SR-OCC-2017-809 are indicated in Exhibit 5B with double underlined and double strikethrough text.

<sup>2</sup> Id. Proposed changes currently pending Commission review in SR-OCC-2017-020 and SR-OCC-2017-809 are indicated in Exhibit 5C with double underlined and double strikethrough text.

<sup>3</sup> OCC's By-Laws and Rules can be found on OCC's public website: <http://optionsclearing.com/about/publications/bylaws.jsp>.

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

The proposed changes were approved for filing with the Commission by the Board of Directors of OCC (“Board”) at meetings held on July 20, 2016, October 3, 2017, and February 23, 2018, with additional modifications approved by the Risk Committee of the Board at a meeting held on March 29, 2018, pursuant to authority delegated by the Board. On July 20, 2016, the holders of all of the outstanding common stock of OCC also unanimously consented to the proposed amendments to Article VIII, Section 5(d) and Article XI, Section 1 of the By-Laws.

Questions should be addressed to Justin Byrne, Vice President, Regulatory Filings, at (202) 971-7238.

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

A. Purpose

**Overview of OCC’s Existing Clearing Fund Methodology**

OCC currently sizes its Clearing Fund at an amount sufficient to protect OCC against losses under simulated default scenarios that include (1) an idiosyncratic default scenario that includes the default of the single Clearing Member Group whose default would be likely to result in the largest draw against the Clearing Fund at a 99% confidence level and (2) a minor systemic event default scenario involving the near-simultaneous default of two randomly-selected Clearing Member Groups calculated at a 99.9% confidence level (“Cover 1 Standard”).<sup>4</sup> OCC then uses the daily peak of such draw estimates to determine the monthly size of the Clearing

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<sup>4</sup> See Rule 1001(a).

Fund, which is established at the greater of (i) a “base amount” equal to the peak five-day rolling average of the Clearing Fund Draws<sup>5</sup> observed over the preceding three calendar months, plus a prudential margin of safety equal to \$1.8 billion, or (ii) 110% of OCC’s committed credit facilities. Upon each monthly determination of the Clearing Fund’s size, each Clearing Member is required to contribute an amount equal to the sum of: (i) the \$150,000 minimum membership requirement, and (ii) an amount equal to the weighted average of the Clearing Member’s proportionate share of open interest, volume, and total risk charges.<sup>6</sup> Any deficits resulting from a difference between a Clearing Member’s required Clearing Fund contribution and the amount that such member currently has on deposit are due within five business days of the resizing.<sup>7</sup>

Supplemental to the monthly Clearing Fund sizing process, OCC’s Financial Risk Management department (“FRM”) assesses on a daily basis the sufficiency of the Clearing Fund by monitoring Clearing Fund Draw estimates in order to identify exposures that may require collection of additional margin from a Clearing Member Group or an intra-month resizing of the Clearing Fund in accordance with OCC’s FRMC Procedure.<sup>8</sup> In instances where an estimate of a particular Clearing Member Group’s Clearing Fund Draw (referred to herein as an “idiosyncratic” estimate) exceeds 75% of the amount currently in the Clearing Fund (i.e., the

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<sup>5</sup> The term “Clearing Fund Draw” refers to an estimated stress loss exposure in excess of margin requirements.

<sup>6</sup> See Rule 1001(b).

<sup>7</sup> See Rule 1003.

<sup>8</sup> See Securities Exchange Act Release No. 74980 (May 15, 2015), 80 FR 29364 (May 21, 2015) (SR-OCC-2015-009). See also Securities Exchange Act Release No. 74981 (May 15, 2015), 80 FR 29367 (May 21, 2015) (SR-OCC-2014-811).

current Clearing Fund requirement less any deficits), OCC issues a margin call against the Clearing Member Group(s) generating such draw(s) for an amount equal to the difference between such estimated draw amount and the base amount of the Clearing Fund.<sup>9</sup> The margin call per-Clearing Member may be limited to an amount equal to the lesser of \$500 million or 100% of such Clearing Member's net capital, subject to OCC management discretion. All margin calls issued must be satisfied by each applicable Clearing Member within one hour of having been notified and remain in place until deficits associated with the next monthly Clearing Fund sizing are collected.<sup>10</sup>

In more extreme circumstances, where OCC observes an idiosyncratic Clearing Fund Draw estimate (after factoring in margin calls issued) exceeding 90% of the Clearing Fund, OCC increases the size of the Clearing Fund by a minimum amount equal to the greater of (i) \$1 billion, or (ii) 125% of the difference between the projected draw (reduced by margin calls issued) and the Clearing Fund in effect. Each Clearing Member not subject to OCC's minimum \$150,000 Clearing Fund requirement (e.g., a Futures-Only Affiliated Clearing Member) receives a proportionate share of the Clearing Fund increase equal to its proportionate share of the variable portion of the Clearing Fund for the current month (i.e., the Clearing Member's

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<sup>9</sup> In the case where an estimated draw is associated with multiple Clearing Members within a single Clearing Member Group, the margin call is allocated among the individual Clearing Members in the Clearing Member Group based on each Clearing Member's proportionate share of the "total risk" for such Clearing Member Group, as that term is defined in current Rule 1001(b). See Rule 1001(b). Accordingly, the term "total risk" in this context means the margin requirement with respect to all accounts of the Clearing Member Group exclusive of the net asset value of the positions in such accounts aggregated across all such accounts.

<sup>10</sup> See supra note 8.

proportionate share of the Clearing Fund amount as determined pursuant to current Rule 1001(b)(y)). Any deficits associated with the increase to the Clearing Fund must be satisfied within five business days of the resizing.

OCC has identified a number of limitations to its current methodology, which is unable to incorporate historical stress test scenarios and which can result in disproportionate changes to the Clearing Fund size in response to even transitory changes in volatility. As a result, OCC is proposing to replace its current Clearing Fund sizing methodology with a new methodology that would allow OCC to size and assess the sufficiency of its Clearing Fund with a wider range of historical and hypothetical scenarios.

#### **Proposed Changes to OCC’s Clearing Fund and Stress Testing Rules and Methodology**

OCC is proposing a number of enhancements intended to strengthen its overall resiliency, particularly with respect to OCC’s Pre-Funded Financial Resources,<sup>11</sup> including, but not limited to, the following:

- (1) reorganize, restate, and consolidate the provisions of OCC’s By-Laws and Rules relating to the Clearing Fund into a newly revised Chapter X of OCC’s Rules;
- (2) modify the coverage level of OCC’s Clearing Fund sizing requirement to ensure that the size of the Clearing Fund is sufficient to protect OCC against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions (i.e., adopt a

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<sup>11</sup> The proposed Policy would define OCC’s “Pre-Funded Financial Resources” to mean margin of the defaulted Clearing Member and the required Clearing Fund less any deficits, exclusive of OCC’s assessment powers.

“Cover 2 Standard” for sizing the Clearing Fund);

(3) adopt a new risk tolerance for OCC to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period;

(4) adopt a new Clearing Fund and stress testing methodology, which would be underpinned by a new scenario-based one-factor risk model stress testing approach, as detailed in the newly proposed Policy and Methodology Description;<sup>12</sup>

(5) document governance, monitoring, and review processes related to Clearing Fund and stress testing;

(6) provide for certain anti-procyclical<sup>13</sup> limitations on the reduction in Clearing Fund size from month to month;

(7) increase the minimum Clearing Fund contribution requirement for Clearing Members to \$500,000;

(8) modify OCC’s allocation weighting methodology for Clearing Fund contributions;

(9) reduce from five to two business days the timeframe within which Clearing Members are required to fund Clearing Fund deficits due to monthly or intra-month resizing or due to

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<sup>12</sup> OCC has separately submitted to the Commission its Comprehensive Stress Testing and Clearing Fund Methodology document and Dynamic VIX Calibration Process paper, which are included in this filing as Exhibits 3A and 3B, and for which OCC has requested confidential treatment. These Exhibits are being provided as supplemental information to the filing and would not constitute part of OCC’s rules, which have been provided in Exhibit 5.

<sup>13</sup> A quality that is positively correlated with the overall state of the market is deemed to be “procyclical.” For example, procyclicality may be evidenced by increasing margin or Clearing Fund requirements in times of stressed market conditions and low margin or Clearing Fund requirements when markets are calm. Hence, anti-procyclical features in a model are measures intended to prevent risk-base models from fluctuating too drastically in response to changing market conditions.



Rule amendments;

(10) provide additional clarity in OCC's Rules regarding certain anti-procyclicality measures in OCC's margin model; and

(11) make a number of other non-substantive clarifying, conforming, and organizational changes to OCC's By-Laws, Rules, and filed procedures.

***1. Reorganization and Consolidation of Clearing Fund By-Laws and Rules***

The primary provisions that address OCC's Clearing Fund are currently located in Article VIII of the By-Laws and Chapter X of the Rules. Because the proposed changes to the Clearing Fund would substantially amend the relevant By-Law and Rule provisions, OCC believes that this is an appropriate opportunity to consolidate the primary provisions that address the Clearing Fund into Chapter X of the Rules. As a result, the content of Article VIII of the By-Laws would be consolidated into Chapter X of the Rules, subject to the proposed amendments described herein.<sup>14</sup> In place of this, Article VIII of the By-Laws would contain a general statement that OCC shall maintain a Clearing Fund, as provided in and subject to the terms of Chapter X of the Rules, and the size of the Clearing Fund shall at all times be subject to minimum sizing requirements and generally be calculated on a monthly basis by OCC; however, the size of the Clearing Fund may be adjusted more frequently than monthly under certain conditions specified in proposed Rule 1001. OCC believes that consolidating all of the Clearing Fund-related provisions of its By-Laws and Rules into one place would provide more clarity around, and

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<sup>14</sup> While Article VIII of the By-Laws would effectively be reserved for future use, a statement would be added to indicate that OCC maintains the Clearing Fund as provided in and subject to the Rules provided in Chapter X.

enhance the readability of, OCC's Clearing Fund requirements.

OCC notes that, while the content of Article VIII is being moved out of the By-Laws and into the Rules, subject to the proposed changes described herein, OCC is not proposing to change the existing governance requirements with respect to amending the provisions currently contained in Article VIII. Article XI, Section 2 of the By-Laws provides that the Board of Directors may amend the Rules by a majority vote, while Article XI, Section 1 of the By-Laws provides that amendments to the By-Laws require an affirmative vote of two-thirds of the directors then in office, but not less than a majority of the number of directors fixed by the By-Laws. To ensure that the latter, heightened governance standard continues to apply to the Clearing Fund provisions that will be moved from Article VIII of the By-Laws to Chapter X of the Rules, OCC is proposing to amend Article XI, Section 2 of the By-Laws to apply the heightened approval requirements to the provisions of Chapter X of the Rules that would be carried over from the By-Laws. Specifically, OCC would amend Article XI of the By-Laws to stipulate that while the Rules may be amended at any time by the Board of Directors, any amendment of the introduction to newly proposed Chapter X of the Rules, Rule 1002, Rule 1006, Rule 1009 and Rule 1010 (the substance of which is primarily derived from Article VIII of the By-Laws) shall require the affirmative vote of two-thirds of the directors then in office (but not less than a majority of the number of directors fixed by the By-Laws). Moreover, Article XI of the By-Laws would be amended to provide that the first sentence of proposed Rule 1006(e) may not be amended by action of the Board of Directors without the approval of the holders of all of the outstanding Common Stock of the OCC entitled to vote thereon. Proposed Rule 1006(e) is

derived from existing Article VIII, Section 5(d) of the By-Laws, which is currently subject to this stockholder consent requirement under Article XI, Section 1 of the By-Laws. A detailed discussion of other organizational changes can be found in Section 10 below.

As noted above, and further described below, OCC also proposes to adopt a new Policy and Methodology Description to supplement its proposed Rules and provide further details around OCC's Clearing Fund and stress testing methodology and the related governance framework.

## ***2. Adoption of a Cover 2 Standard for OCC's Clearing Fund***

Under existing Rule 1001(a) and consistent with applicable Exchange Act requirements,<sup>15</sup> OCC currently maintains a Cover 1 Standard with respect to the size of its Clearing Fund. The current methodology uses a sizing approach whereby OCC estimates draws against the Clearing Fund under a simulated idiosyncratic default scenario (representing simulated losses of a single Clearing Member Group) and a minor systemic default scenario (representing all pairings of two Clearing Member Groups, with each pair of distinct Clearing Member Groups being deemed equally likely).

OCC is proposing to amend its Rules and adopt a new Policy and Methodology Description to implement a Cover 2 Standard with respect to sizing the Clearing Fund. As a result, new Rule 1001(a), which replaces existing Rule 1001(a), would provide, in part, that the size of the Clearing Fund shall be established on a monthly basis at an amount determined by OCC to be sufficient to protect it against losses stemming from the default of the two Clearing

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<sup>15</sup> See 17 CFR 240.17Ad-22(b)(3) and (e)(4)(iii).

Member Groups that would potentially cause the largest aggregate credit exposure for OCC under stress test scenarios that represent extreme but plausible market conditions (subject to certain minimum sizing requirements) (such stress tests being “Sizing Stress Tests”).<sup>16</sup> The proposed Sizing Stress Tests would be supplemented by additional historical or hypothetical stress test scenarios (“Sufficiency Stress Tests”) and, in the event Sufficiency Stress Tests call for a larger Clearing Fund size, the Clearing Fund shall be re-sized based on such Sufficiency Stress Tests (as described in more detail in Section 4.e below).

The adoption of a Cover 2 Standard for the Clearing Fund would continue to satisfy OCC’s existing obligations under the Securities Exchange Act of 1934 (“Exchange Act” or “Act”),<sup>17</sup> and also would be consistent with international standards and best practices for central counterparties (“CCPs”).<sup>18</sup> OCC believes that moving to an industry best practice Cover 2 Standard would increase OCC’s resiliency and enable it to better withstand the default of multiple Clearing Members. OCC’s proposed approach of adopting a Cover 2 Standard is reiterated in the proposed Policy and Methodology Description, and the stress tests referred to in new Rule 1001(a) are described in more detail in Section 4 below.<sup>19</sup>

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<sup>16</sup> The calculated size of the Clearing Fund may also be determined more frequently than monthly under certain conditions, as specified within proposed Rule 1001(c).

<sup>17</sup> 15 U.S.C. 78a et seq. See supra note 15.

<sup>18</sup> See Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, Principles for financial market infrastructures (Apr. 16, 2012), available at <http://www.bis.org/publ/cpss101a.pdf>.

<sup>19</sup> Under the proposed Clearing Fund methodology, OCC would no longer maintain the prudential margin of safety, as currently provided for in existing Rule 1001(a). As described further herein, OCC’s proposed risk tolerance would be set at a 1-in-50 year market event; however, OCC would size its Clearing Fund to cover a more conservative 1-in-80 year event, creating a buffer beyond

### 3. *New Risk Tolerance for OCC's Pre-Funded Financial Resources*

OCC proposes to adopt a new risk tolerance with respect to credit risk that its Clearing Fund, along with OCC's other Pre-Funded Financial Resources,<sup>20</sup> should be sufficient to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure in extreme but plausible market conditions. In developing a risk tolerance with regard to the sizing of the Clearing Fund, OCC believes that a 1-in-50 year hypothetical market event<sup>21</sup> represents the outer range of extreme but plausible scenarios for OCC's cleared products. Accordingly, OCC proposes to adopt a new risk tolerance with respect to sizing its Pre-Funded Financial Resources that would cover a 1-in-50 year hypothetical market event on a Cover 2 Standard at a 99.5% confidence level over a two-year look-back period. The hypothetical scenarios used to establish the proposed risk tolerance would be based on the statistical fit of the historical returns for the "risk drivers" of equity products (or "risk factors") for a 1-in-50 year decline and rally in the Standard & Poor's S&P 500 Index ("SPX").<sup>22</sup> OCC would then set the

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its risk tolerance. As a result, OCC believes the prudential margin of safety would no longer be necessary.

<sup>20</sup> Under the proposed Policy, "Pre-Funded Financial Resources" would be defined as the margin of the defaulted Clearing Member and the required Clearing Fund less any deficits. OCC would not include assessment powers as a Pre-Funded Financial Resource.

<sup>21</sup> OCC notes that a 1-in-50 year hypothetical market event corresponds to a 99.9921% confidence interval under OCC's chosen distribution of 2-day logarithmic S&P 500 index returns. The construction of Hypothetical stress test scenarios, including the 1-in-50 year market event used for OCC's risk tolerance, is discussed in Section 4 below.

<sup>22</sup> "Risk factors" refer broadly to all of the individual underlying securities (such as Google, IBM and Standard & Poor's Depositary Receipts ("SPDR"), S&P 500 Exchange Traded Funds ("SPY"), etc.) listed on a market. The "risk drivers" are a selected set of securities or market

size of its Clearing Fund on a monthly basis at an amount sufficient to cover this risk tolerance, as described in more detail in Section 4.d below.

#### ***4. Adoption of New Clearing Fund and Stress Testing Methodology***

OCC proposes to adopt a new methodology for sizing and monitoring its Clearing Fund and overall Pre-Funded Financial Resources, which primarily would be detailed in the proposed Policy and the Methodology Description. OCC believes that its proposed methodology would enable it to measure its credit exposure and to size its Pre-Funded Financial Resources at a level sufficient to cover potential losses under extreme but plausible market conditions.

Under the requirements of the proposed Policy, OCC would base its determination of the Clearing Fund size on the results of stress tests conducted daily using standard predetermined parameters and assumptions. These daily stress tests would consider a range of relevant stress scenarios and possible price changes in liquidation periods, including but not limited to: (1) relevant peak historic price volatilities; (2) shifts in other market factors including, as appropriate, price determinants and yield curves; and (3) the default of one or multiple Clearing Members. OCC also would conduct reverse stress tests for informational purposes aimed at identifying extreme default scenarios and extreme market conditions for which the OCC's financial resources would be insufficient.

As further described in the proposed Methodology Description, the stress scenarios used in the proposed methodology would consist of two types of scenarios: "Historical Scenarios" and

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indices (e.g., the SPX or the Cboe Volatility Index ("VIX")) that are used to represent the main sources or drivers for the price changes of the risk factors. The use and application of risk factors and risk drivers in OCC's proposed methodology are discussed further in Section 4 below.

“Hypothetical Scenarios.” Historical Scenarios would replicate historical events in current market conditions, which include the set of currently existing securities, their prices and volatility levels. These scenarios provide OCC with information regarding pre-defined reference points determined to be relevant benchmarks for assessing OCC’s exposure to Clearing Members and the adequacy of its financial resources. Hypothetical Scenarios would represent events in which market conditions change in ways that have not yet been observed. The Hypothetical Scenarios would be derived using statistical methods (e.g., draws from estimated multivariate distributions) or created based on expert judgment (e.g., a 15% decline in market prices and 50% in volatility). These scenarios would give OCC the ability to change the distribution and level of stress in ways necessary to produce an effective forward-looking stress testing methodology. OCC would use these pre-determined stress scenarios in stress tests, conducted on a daily basis, to determine OCC’s risk exposure to each Clearing Member Group by simulating the profits and losses of the positions in their respective account portfolios under each such stress scenario.

The proposed Methodology Description would also describe OCC’s proposed approach for constructing stress test portfolios. For purposes of the proposed methodology, OCC would construct portfolios based on “liquidation positions,” which are designed to more closely reflect how positions would be internalized (or netted) as part of OCC’s default management process. The liquidation position set is created through an internalization process where long and short positions in the same contract series are closed out within an account type at the Clearing Member level. This replicates the process OCC would perform in the case of a Clearing Member default when offsetting positions are internalized before liquidating the remainder of the

defaulter's portfolio. For simplicity purposes, OCC developed its current set of liquidation positions by internalizing within an account type at the Clearing Member level but does not incorporate potential internalization that can occur across account types. As a result, liquidation positions only reflect a portion of the potential exposure-reducing benefits associated with internalization and may lead to more conservative estimates of exposure.

As described further below, the proposed Policy and Methodology Description would include stress tests designed to: (1) determine the size of the Clearing Fund (i.e., Sizing Stress Tests run using OCC's inventory of "Sizing Scenarios"), (2) assess OCC's Clearing Fund size with respect to its risk tolerance and any other scenarios determined by the Risk Committee (i.e., Adequacy Stress Tests run using OCC's inventory of "Adequacy Scenarios"), (3) measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional margin resources from that individual Clearing Member Group (or Groups) or from Clearing Members generally through an intra-month resizing of the Clearing Fund (i.e., Sufficiency Stress Tests run using OCC's inventory of "Sufficiency Scenarios"), and (4) monitor and assess OCC's total financial resources under a variety of market conditions (i.e., Informational Stress Tests run using OCC's inventory of "Informational Scenarios").

OCC's proposed stress testing model, the construction of Hypothetical and Historical Scenarios, and the variety of stress tests thereunder are described in more detail below.



*a. Proposed Stress Testing Model*

*(i). Risk Drivers and Stress Scenarios*

As detailed in the proposed Methodology Description, the proposed stress testing methodology is a scenario-based risk factor model with the following principal elements. First, a set of risk drivers are selected based on the portfolio exposures of all Clearing Member Groups in the aggregate. Second, each individual underlying security contained in the portfolio of a Clearing Member Group (each a “risk factor”) is mapped to a risk driver, and the sensitivity or “beta” of the security with respect to the corresponding risk driver is estimated (i.e., the sensitivity of the price of the security relative to the price of the risk driver). Third, a set of stress scenarios is generated by assigning a stress shock to each of the risk drivers, with the shocks of an individual underlying security or risk factor determined by the shock of its risk driver and its sensitivity (or beta) to the risk driver. Fourth, for each of the stress scenarios, the risk exposure or shortfall of each portfolio of a Clearing Member is calculated and aggregated at the Clearing Member Group level.

Under the proposed stress testing methodology, each individual underlying security in the Clearing Members’ portfolios is represented by a risk factor (such as Google, IBM, Standard & Poor’s Depository Receipts (“SPDR”), S&P 500 Exchange Traded Funds (“SPY”), etc.). The number of risk factors is typically in the thousands. Because the vast amount of OCC’s products are equity based, the risk drivers comprise a small set of underlying securities or market indices (e.g., Cboe S&P 500 Index (“SPX”), or the VIX) that are used to represent the main sources or drivers for the price changes of the risk factors. Other relevant risk drivers are included to cover

U.S. and Canadian Government Security collateral positions, as well as commodity based exchange-traded funds (“ETFs”) and futures products. The risk drivers are selected based on the characteristics of the risk factors in the Clearing Members’ portfolios.

After the risk drivers are selected, each risk factor would be mapped to one risk driver. This mapping allows OCC to simulate movements for a large number of risk factors by the movements of a smaller number of risk drivers. In general, the mapping depends on the type of risk factor. For example, equity price risk factors generally are mapped to SPX and volatility risk factors to VIX. Government bond risk factors generally would be mapped to either U.S. Dollar (“USD”) Treasury yields or Canadian Dollar (“CAD”) government bond yields depending on the currency. The Treasury ETFs generally would be mapped to one of the Treasury bond ETFs. The commodity products generally would be mapped to one of the representative ETFs of the corresponding commodity class. All other risk factors initially would be mapped by default to SPX.

Under the proposed Methodology Description, risk drivers and the corresponding shocks would be reviewed regularly by OCC’s Stress Testing Working Group (“STWG”), a cross-departmental team including senior officers from FRM, Quantitative Risk Management (“QRM”), Model Validation Group (“MVG”), and Enterprise Risk Management. The addition of a new risk driver or change in an existing risk driver would most likely be driven by a change in OCC’s product exposure or by other changes in the market. Changes to risk drivers would be reviewed and approved by the STWG. QRM would recalibrate scenario shocks at least annually. In addition, on a quarterly basis (or more frequently if QRM or STWG determines that updates

are necessary to capture significant market events in a timely fashion), QRM would recalibrate the risk driver shocks and report those results to the STWG who would review and approve any updates to the risk driver shocks.

To simulate a stressed market scenario, OCC would construct two kinds of scenarios, namely Hypothetical Scenarios (including statistically derived scenarios) and Historical Scenarios. Hypothetical Scenarios constructed using statistical methods would be based on various quantiles of the fitted distribution of the log returns of the main risk driver (e.g., SPX). Historical Scenarios on the other hand would be created using historic price moves for the risk factors on a given date where the scenario is defined. Additional details on the proposed stress testing model by asset class are discussed below.

*(i). Equity Risk Drivers and Shocks*

Under the proposed methodology, price shocks used for equity instruments in the statistically-derived Hypothetical Scenarios would be based on the quantiles of fitted statistical distributions of the 2-day returns of the risk driver (e.g., a 1-in-80 year event SPX down shock). For example, as noted above, OCC uses the SPX as a risk driver for equity price moves. OCC would construct the majority of its Hypothetical Scenarios by fitting an appropriate statistical distribution to SPX returns. OCC would construct a historical dataset of SPX 2-day log returns dating back to 1957,<sup>23</sup> to characterize its fat-tailed<sup>24</sup> and asymmetric distribution. In order to

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<sup>23</sup> OCC would extend this dataset from March 1957 to the present if OCC determines that price shocks need to be re-calibrated. As a general matter, OCC has established this look-back period primarily on the basis of the quality of available data. The SPX, in its current form, dates back to 1957, and OCC therefore uses all of the index's data since that date. Furthermore, based on OCC's analysis of various observation windows dating back to the Great Depression, OCC has

reduce pro-cyclicality in Clearing Fund sizing and also to represent betas in a stressed market, OCC would shock risk factors using (1) a historical beta and (2) a beta equal to 1. The portfolio level profit and loss would be calculated with both betas separately for each Hypothetical Scenario, and OCC would use the calculation yielding the worst of the two outcomes in the subsequent Clearing Fund sizing.

The proposed Methodology Description would describe in detail OCC's proposed methodology for calculating price shocks for equity instruments, including leveraged products and any underlying baskets.

***(ii). Volatility Shock Model***

As noted above, under the proposed methodology, OCC would use the VIX as the key risk driver for volatility shocks in its proposed stress testing model. The VIX is a measure of the one-month implied volatility<sup>25</sup> of the SPX, which represents the market's expectation of stock

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observed that the price shocks vary with the different periods used in the calibration. OCC's decision to use the entire history of the SPX is based on its desire to minimize the effects associated with a pre-defined observation window, and to avoid the subjective determination of higher or lower periods of volatility or the sudden exclusion of dates that fall outside of a fixed look back period. As noted above, QRM would recalibrate the risk driver shocks on a quarterly basis and report those results to the STWG who would review and approve any updates to the risk driver shocks.

<sup>24</sup> A data set with a "fat tail" is one in which extreme price returns have a higher probability of occurrence than would be the case in a normal distribution.

<sup>25</sup> Generally speaking, the implied volatility of an option is a measure of the expected future volatility of the value of the option's annualized standard deviation of the price of the underlying security, index, or future at exercise, which is reflected in the current option premium in the market. Using the Black-Scholes options pricing model, the implied volatility is the standard deviation of the underlying asset price necessary to arrive at the market price of an option of a given strike, time to maturity, underlying asset price and given the current risk-free rate. In effect, the implied volatility is responsible for that portion of the premium that cannot be explained by

market volatility over the next 30-day period. For risk factors with SPX as their risk driver, implied volatility shocks would be modeled from SPX implied volatility shocks and the price beta of the risk factor.<sup>26</sup> For non-SPX driven risk factors, the implied volatility shock would be based on historical volatility beta regressed directly against the VIX. Accordingly, the proposed Methodology Description would describe in detail OCC's proposed methodology for calibrating VIX shocks, including those risk factors with SPX as the key risk driver, those risk factors with a non-SPX risk driver, and implied volatilities of any underlying baskets.

***(iii). Price Shock Models for Other Instruments***

OCC's proposed Methodology Description also would describe OCC's proposed approach to modeling price shocks for fixed income instruments and futures products. Specifically, the Methodology Description would discuss OCC's proposed approach for modeling foreign exchange currency shocks and yield curve shocks, which are used to shock U.S. Treasury bonds and Canadian government bonds held as collateral. The Methodology Description would also cover price and volatility shocks for commodity/energy products. The price shock model for commodity/energy products is the same as that for equity class drivers and the volatility shock model used for options on commodities is the same as that for non-SPX driven risk factors.

***b. Stress Testing Scenario Construction***

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the then-current intrinsic value (i.e., the difference between the price of the underlying and the exercise price of the option) of the option, discounted to reflect its time value.

<sup>26</sup> For defined Historical Scenarios, the implied volatility shock leverages a beta based on the ratio of the risk factor price shock to the SPX price shock.

OCC proposes to construct Hypothetical and Historical scenarios using two different methodologies: a statistical methodology and a historical/defined shock methodology. Each of these approaches is discussed in further detail below.

*(i). Hypothetical Scenarios*

Under the proposed methodology, price shocks determined in the statistically-derived Hypothetical Scenarios would be based on the quantiles of fitted statistical distributions of the 2-day log returns of the risk driver. For example, Adequacy Scenarios would be based on the generated statistical down and up shocks for the SPX from a 1-in-50 year market event. On the other hand, Sizing Scenarios would be based on the generated statistical down and up shocks for the SPX from a 1-in-80 year market event. Specifically, OCC would use four Hypothetical Scenarios to guide the sizing of the Clearing Fund: (1) a 1-in-80 year market rally using a historical beta; (2) a 1-in-80 year market rally using a beta equal to 1; (3) a 1-in-80 year market decline using a historical beta; and (4) a 1-in-80 year market decline using a beta equal to 1.

Not all Statistical Scenarios would be generated using fitted distributions, however. For example, the Statistical Scenarios for interest rates are based on the “Principal Component Analysis” methods (a commonly used statistical method to analyze the movements of yield curves of Treasury bonds), while the Statistical Scenarios for commodity ETFs would be based on the empirical price changes.

The proposed Methodology Description would describe how OCC would calibrate price and volatility shocks for equities, fixed income products, and commodity/energy products in its Hypothetical Scenarios.

*(ii). Historical Scenarios*

OCC would construct Historical Scenarios using historically accurate price moves for risk factors on a given date, provided the underlying securities were available on the date for which the scenario is defined. Historical Scenarios, which are based on significant market events, would allow OCC to analyze how current portfolios would perform if a historical event were to occur again. Because not all of the securities or risk factors in current portfolios existed on past scenario dates, OCC has developed methodologies to approximate the past price and volatility movements of such risk factors. Under the proposed methodology, a technique known as “Survival Method Pricing” would be used to backfill missing historical shocks. In the backfill technique, the observable 2-day returns of all risk factors would be averaged by industry sectors, and these sector averages would then be used to backfill the missing price returns of the securities (for example, Facebook stock would use the technology sector average under a 2008 Historical Scenario).<sup>27</sup>

*c. Clearing Fund Sizing and Stress Testing*

Under the proposed methodology, OCC would perform daily stress testing using a wide range of scenarios, both Hypothetical and Historical, designed to serve multiple purposes. Specifically, OCC’s proposed stress testing inventory would contain scenarios designed to: (1) determine whether the financial resources collected from all Clearing Members collectively are

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<sup>27</sup> With respect to volatility risk driver shocks, the exact volatility scenarios for a historical event may often be overridden by VIX shocks generated using OCC’s dynamic VIX calibration process because: (1) the historical volatility data is not available; and 2) even when the data is available, the sizes of the exact historical moves are too low to generate any realistic losses.

adequate to cover OCC's risk tolerance; (2) establish the monthly size of the Clearing Fund; (3) measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups, and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional resources so that OCC continues to maintain sufficient financial resources to guard against potential losses under a wide range of stress scenarios, including extreme but plausible market conditions; and (4) monitor and assess the size of OCC's Pre-Funded Financial Resources against a wide range of stress scenarios that may include extreme but implausible and reverse stress testing scenarios. Each of these categories of stress tests is discussed in further detail below.

*(i). Adequacy Stress Tests*

Under the proposed Policy and Methodology Description, on a daily basis, OCC would perform a set of Adequacy Stress Tests designed to determine whether the financial resources collected from all Clearing Members collectively are adequate to cover OCC's risk tolerance (and other specified scenarios as may be approved by the Risk Committee) (i.e., Adequacy Scenarios). The performance of these Adequacy Stress Tests would allow OCC to assess the size of its Clearing Fund against its risk tolerance; however, Adequacy Stress Tests would not drive calls for additional financial resources. Adequacy Scenarios would include, at a minimum, scenarios reflecting OCC's proposed risk tolerance, which corresponds to a Clearing Fund size that would cover a 1-in-50 year market event on a Cover 2 Standard. Adequacy Stress Tests should demonstrate that OCC maintains sufficient Pre-Funded Financial resources to cover all Adequacy Scenarios at a 99.5% coverage level over a two-year look back period.



*(ii). Sizing Stress Tests*

Under the proposed Policy and Methodology Description, FRM would determine the monthly Clearing Fund size based on the results of Sizing Stress Tests conducted daily using standard predetermined parameters and assumptions. Specifically, OCC would use Sizing Stress Tests to project the Clearing Fund size necessary for OCC to maintain sufficient Pre-Funded Financial Resources to cover losses arising from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure to OCC as a result of a 1-in-80 year hypothetical market event, which OCC believes would provide sufficient coverage of OCC's 1-in-50 year event risk tolerance (and any other Adequacy Scenarios as may be approved by the Risk Committee) and to guard against intra-month scenario volatility and procyclicality.<sup>28</sup>

Under existing Rule 1001(a), OCC's Clearing Fund size determination is based on the peak five-day rolling average of its Clearing Fund sizing calculations observed over the preceding three calendar months plus a prudential margin of safety. As described in the proposed Policy and Methodology Description, OCC would continue to determine the Clearing Fund size for a given month by using a peak five-day rolling average of the Sizing Stress Test results over the prior three months but, as noted above, would no longer require a prudential margin of safety.<sup>29</sup> OCC believes that sizing the Clearing Fund at a more conservative 1-in-80 year market event scenario (over the proposed 1-in-50 year risk tolerance) would help to reduce

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<sup>28</sup> In addition, OCC proposes conforming changes to delete Interpretation and Policy .02 of Rule 1001, which concerns the minimum confidence level used to size the Clearing Fund, as the confidence level used to size the Clearing Fund would now be addressed in the Policy and Methodology Description.

<sup>29</sup> See supra note 19.

volatility in its Clearing Fund sizing methodology and ensure that OCC continues to maintain sufficient resources in the event of large peaks and volatile markets, thereby providing a similar anti-procyclical buffer to the current prudential margin of safety.

In addition, under the proposed Policy, the minimum size of the Clearing Fund would continue to be set in accordance with OCC's minimum liquidity resources to equal 110% of OCC's committed liquidity facilities plus OCC's Cash Clearing Fund Requirement. However, if a temporary increase to the Cash Clearing Fund Requirement is made pursuant to OCC's Rules, the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer would be authorized to determine whether such an increase should result in an increase in the minimum size of the Clearing Fund (which is tied to, in part, OCC's Cash Clearing Fund Requirement).

OCC also proposes to introduce some anti-procyclical measures for its monthly sizing process, which are discussed in Section 6 below.

***(iii). Sufficiency Stress Tests***

On a daily basis, OCC would run a set of Sufficiency Stress Tests to measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional resources (1) from that individual Clearing Member Group (or Groups) in the form of margin or (2) from Clearing Members generally through an intra-month resizing of the Clearing Fund. OCC initially expects to implement a set of historically-based Sufficiency Scenarios that would include, among others, the worst two-day price moves, up and down, during the 2008 financial crisis, which constitute the two most extreme two-day price moves observed in the

entire history of SPX with the exception of the 1987 market crash, to be covered on a Cover 2 basis. OCC also would include as a Sufficiency Scenario a historical October 1987 market crash event to be covered on a Cover 1 basis.

Under the proposed Sufficiency Stress Tests, the largest Clearing Fund Draw from each Sufficiency Scenario shall be compared against the Clearing Fund size on a daily basis to assess whether OCC maintains sufficient financial resources to cover the stress scenario. If a Sufficiency Stress Test indicates that a Clearing Fund Draw would breach certain established thresholds, OCC would initiate (depending on the threshold breached) the process of (1) conducting additional monitoring, (2) collecting additional margin from the specific Clearing Member Group (or Groups) causing the breach, or (3) in extreme cases, resizing the Clearing Fund. Such thresholds have been designed to ensure that OCC's Pre-Funded Financial Resources would remain sufficient to cover losses that may be incurred by its largest one or two Clearing Member Groups, depending on the scenario in question. Each proposed threshold is set forth below, and included with each threshold are mitigating actions that OCC would take in the event of a breach of the threshold.

***(1). Enhanced Monitoring***

Under the proposed Policy, in the event that Sufficiency Stress Tests identify a Clearing Fund Draw for one or two Clearing Member Groups that causes the largest aggregate credit exposure to OCC to exceed 65% of the current Clearing Fund requirement less deficits, but that does not breach a Sufficiency Stress Test Threshold (as defined below), FRM would promptly conduct enhanced monitoring and notify the relevant Clearing Member Group (or Groups) that

they are approaching a margin call threshold in accordance with internal OCC procedures.<sup>30</sup>

*(2). Sufficiency Stress Test Threshold 1 – Intra-Day Margin Calls*

OCC proposes to amend Rule 609 to provide that, in addition to its existing authority to require intra-day margin deposits, OCC may require additional margin deposits if a Sufficiency Stress Test identifies a breach that exceeds 75% of the current Clearing Fund requirement less deficits (the “75% threshold” or “Sufficiency Stress Test Threshold 1”). The proposed change is designed to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its largest one or two Clearing Member Group exposures under a wide range of stress scenarios, including extreme but plausible scenarios, where one of the proposed Sufficiency Stress Test scenarios identifies a potential breach in OCC’s Clearing Fund size. In the event of a breach of the 75% threshold, OCC would initially collateralize this potential stress exposure by collecting margin from the Clearing Member Group(s) driving the breach.

Pursuant to the proposed Policy and Methodology Description, if a Sufficiency Stress Test identifies a Clearing Fund Draw for any one or two Clearing Member Groups that exceeds Sufficiency Stress Test Threshold 1, OCC would be authorized to issue a margin call against the Clearing Member Group(s) and/or Clearing Member(s) causing the breach in accordance with Rule 609. In the case of Cover 1 Sufficiency Scenarios (e.g., the historical Cover 1 1987 scenario), the amount of the margin call for a Clearing Member Group would be equal to the excess of such Clearing Member Group’s projected Clearing Fund Draw over the 75% threshold.

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<sup>30</sup> OCC notes that it performs a similar enhanced monitoring process under its current FRMC Procedure when Idiosyncratic Clearing Fund Draws exceed 65% of the Clearing Fund currently in effect.

In the case of Cover 2 Sufficiency Scenarios (e.g., a historical Cover 2 2008 market event scenario) the total amount of the margin call shall be equal to the excess of the Cover 2 Clearing Fund Draw over the 75% threshold.<sup>31</sup> In the event a Clearing Member Group's Clearing Fund Draws exceed the 75% threshold in more than one Sufficiency Scenario, the Clearing Member Group would be subject to the largest margin call resulting from scenarios. Margin calls would be allocated to Clearing Members and related accounts within the Clearing Member Group in accordance with OCC procedures.<sup>32</sup>

All margin calls would be required to be approved by a Vice President (or higher) of FRM and would remain in effect until the collection of additional funds associated with the next monthly resizing of the Clearing Fund, after which the margin call would be (1) released or (2) recalculated based on the current Clearing Fund Draw.<sup>33</sup> If the margin call imposed on an individual Clearing Member exceeds \$500 million, OCC's Stress Testing and Liquidity Risk

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<sup>31</sup> In the event only one Clearing Member Group's Clearing Fund Draw exceeds 50% of Sufficiency Stress Test Threshold 1, that Clearing Member Group would pay the entire call. In the event both Clearing Member Groups' Clearing Fund Draws exceed 50% of Sufficiency Stress Test Threshold 1, both Clearing Member Groups would pay an amount equal to the excess of their respective Clearing Fund Draw over 50% of the Sufficiency Stress Test threshold.

<sup>32</sup> OCC notes that under the current FRMC Procedure, in the event that FRM observes a scenario where the Idiosyncratic Clearing Fund Draw exceeds 75% of the Clearing Fund, an intra-day margin call would be issued against the Clearing Member or Clearing Member Group that caused such a draw, with the amount of the margin call being the difference between the projected draw and the "base amount." See *supra* note 8 and accompanying text.

<sup>33</sup> OCC notes that, under the current FRMC Procedure, for the days prior to the collection of any Clearing Fund payments due that result from the re-sizing of the Clearing Fund on the first business day of the month, both the base Clearing Fund requirement and the Clearing Fund in effect are further reduced by any outstanding deficits. The proposed changes would clarify that upon the collection of funds to satisfy such deficits, any margin calls would be (1) released or (2) recalculated based on the current Clearing Fund Draw.

Management group (“STLRM”) would provide written notification to the Executive Chairman and Chief Executive Officer, President and Chief Operating Officer, and Chief Administrative Officer (collectively referred to as the “Office of the Chief Executive Officer” or “OCEO”).<sup>34</sup> If the margin call imposed on an individual Clearing Member would exceed 100% an individual Clearing Member’s net capital, the issue would be escalated to the OCEO, and each of the Executive Chairman, Chief Administrative Officer, and Chief Operating Officer would have the authority to determine whether OCC should continue calling for additional margin in excess of this amount. OCC believes that this notification and escalation process would enable OCC to appropriately require those Clearing Members that bring elevated risk exposures to OCC to bear the costs of those risks in the form of margin charges while also allowing OCC to take into consideration a particular Clearing Member’s ability to meet the call based on its financial condition, and the amount of collateral it has available to pledge when certain pre-identified thresholds have been exceeded.

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<sup>34</sup> OCC notes that, under its current FRMC Procedure, margin calls may be subject to a per-Clearing Member cap equal to the lesser of \$500 million or 100% of such Clearing Member’s net capital; however, OCC’s management retains discretion under the FRMC Procedure to call for additional margin beyond those amounts with certain reporting requirements when these caps are exceeded. Under the proposed Policy, these thresholds would no longer be characterized as “caps” and there would no longer be a requirement for reporting to OCC’s Management Committee and Risk Committee as the \$500 million threshold would no longer function as a cap and the 100% of net capital threshold would now require escalation to the OCEO for approval of further margin calls. OCC believes the proposed changes to the reporting and approval process are appropriate given that (1) OCC management (typically an officer of OCEO) currently has discretion to waive any margin call caps, (2) under the proposal, these thresholds would no longer be characterized as caps and therefore there would be an assumption that OCC would call for margin in excess of these thresholds, (3) since the adoption of OCC’s current FRMC Procedure, OCC has gained comfort in its Clearing Members’ ability to meet and maintain margin calls in excess of these thresholds and (4) OCEO would retain the ability to notify or escalate an issue to the Risk Committee if they determine such actions are necessary.

***(3). Sufficiency Stress Test Threshold 2 – Intra-Month Clearing Fund Resizing***

Under proposed Rule 1001(c) (and as described in the proposed Policy and Methodology Description), if a Sufficiency Stress Test were to identify a Clearing Fund Draw for any one or two Clearing Member Groups that exceed 90% of the current Clearing Fund size (after subtracting any monies deposited as a result of a margin call in accordance with a breach of Sufficiency Stress Test Threshold 1), OCC would effect an intra-month resizing of the Clearing Fund to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its exposures under a wide range of stress scenarios, including extreme but plausible market conditions. The amount of such an increase would be the greater of: (1) \$1 billion or (2) 125% of the difference between the projected draw under the Sufficiency Stress Test (less any monies deposited pursuant to a margin call resulting from a breach of Sufficiency Stress Test Threshold 1) and the current Clearing Fund size. Each Clearing Member's proportionate share of the increase would be based on its proportionate share of the Clearing Fund as determined pursuant to proposed Rule 1003(a), with the exception of those Clearing Members subject to the minimum contribution amount. OCC's Executive Chairman, Chief Administrative Officer or Chief Operating Officer would be responsible for reviewing and approving any intra-month increase to the size of the Clearing Fund based on a breach of Sufficiency Stress Test Threshold 2 prior to implementation, and any such intra-month increase due to a breach of Sufficiency Stress Test Threshold 2 would remain in effect for any sizing calculations performed during the three month period subsequent to the intra-month increase to ensure that OCC continues to maintain sufficient financial resources to cover its credit exposures during that time.

In addition to intra-month resizing based on Sufficiency Stress Testing, OCC proposes to include additional authority in proposed Rule 1001(d) to provide the Risk Committee, or each of the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon notice to the Risk Committee, with the authority to increase the size of the Clearing Fund at any time for the protection of OCC, Clearing Members or the general public. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in Clearing Fund size would (1) be based upon then-existing facts and circumstances, (2) be in furtherance of the integrity of OCC and the stability of the financial system, and (3) take into consideration the legitimate interests of Clearing Members and market participants. Under the proposed Policy, any temporary increase in Clearing Fund size would be reviewed by the Risk Committee at its next regularly scheduled meeting, or as soon as otherwise practical, and, if such temporary increase is still in effect at the time of that meeting, the Risk Committee would determine whether (1) the increase in Clearing Fund size is no longer required or (2) the Clearing Fund sizing methodology should be modified to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its established risk tolerance.<sup>35</sup>

***(iv). Informational Stress Tests***

Under the proposed Policy and Methodology Description, OCC would run a variety of stress tests for informational purposes (i.e., Informational Stress Tests) to monitor and assess the

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<sup>35</sup> In the event that the Risk Committee would determine to permanently increase or change the methodology used to size the Clearing Fund, OCC would initiate any regulatory approval process required to effect such a change in Clearing Fund size. However, OCC would not decrease the size of its Clearing Fund while the regulatory approvals for such permanent increase are being obtained to ensure that OCC continues to maintain sufficient financial resources during that time.



size of OCC's Pre-Funded Financial Resources against other stress scenarios. The Informational Stress Tests could be comprised of a number of Historical and Hypothetical scenarios, which may include extreme but implausible scenarios and reverse stress test scenarios (i.e., "Informational Scenarios"). Informational Scenarios would not directly drive the size of the Clearing Fund or calls for additional margin; however, they would be an important risk monitoring tool that OCC would use to evaluate the appropriateness of its Adequacy, Sizing, and Sufficiency Scenarios and perform risk escalations and evaluations.

OCC would continually evaluate its inventory of Informational Scenarios and could add additional Informational Scenarios, as needed, to ensure that it understands the limits of its Pre-Funded Financial Resources. Scenarios may later be reclassified as a different scenario type with the approval of OCC's Risk Committee. For instance, a new scenario would typically be introduced as an Informational Scenario, but later may be elevated to a Sizing or Sufficiency Scenario.

##### ***5. Clearing Fund and Stress Testing Governance, Monitoring and Review***

The proposed Policy would establish governance, monitoring and review requirements for OCC's Clearing Fund and stress testing methodology. On a daily basis, STLRM would monitor the results of all of the Adequacy and Sufficiency Stress Tests, including whether the Adequacy Stress Test demonstrates that OCC maintains Pre-Funded Financial Resources above OCC's Adequacy Scenarios, in accordance with internal OCC procedures. Under the proposed Policy, STLRM or the Executive Vice President of FRM ("EVP-FRM") would immediately escalate any material issues identified with respect to the adequacy of OCC's financial resources

to the STWG (provided that STWG review is practical under the circumstances) and the Management Committee to determine if it would be appropriate to recommend a change to the Hypothetical Scenarios used to size the Clearing Fund in accordance with applicable OCC procedures.

Under the proposed Policy, on a monthly basis, STLRM would prepare reports that provide details and trend analysis of daily stress tests with respect to the Clearing Fund, including the results of daily Adequacy Stress Tests, Sizing Stress Tests and Sufficiency Stress Tests and review the adequacy of OCC's financial resources in accordance with internal procedures. On a monthly basis, STWG would perform a comprehensive analysis of these stress testing results, as well as information related to the scenarios, models, parameters, and assumptions impacting the sizing of the Clearing Fund. Pursuant to this review, STWG would consider, and may recommend at its discretion, modifications to OCC's stress test scenario inventory and models for financial resources (including the creation and/or retirement of stress test scenarios, the reclassification of stress test scenarios, and/or modifications to the stress test scenarios' underlying parameters and assumptions), as well as related Policies and Procedures, to ensure their appropriateness for determining OCC's required level of financial resources in light of current and evolving market conditions, and as pursuant to the related Procedures established for this purpose. The reviews would be conducted more frequently than monthly when the products cleared or markets served display high volatility or become less liquid; the size or concentration of positions held by OCC's participants increases significantly; or as otherwise appropriate. The Policy would require that OCC maintain procedures for determining whether,

and in what circumstances, such intra-month reviews shall be conducted, and would indicate the persons responsible for making the determination.

Pursuant to the proposed Policy, STLRM would report the results of stress tests and its monthly analysis to OCC's Management Committee and Risk Committee on at least a monthly basis and would maintain procedures for determining whether, and in what circumstances, the results of stress tests must be reported to the Management Committee or the Risk Committee more frequently than monthly, and would indicate the persons responsible for making the determination. In the performance of monthly review of stress testing results and analysis and considering whether escalation is appropriate, due consideration would be given to the intended purpose of the proposed Policy to: (1) assess the adequacy of, and adjust as necessary, OCC's total amount of financial resources; (2) support compliance with the minimum financial resources requirements under applicable regulations; and (3) evaluate the adequacy of, and recommend adjustments to OCC's margin methodology, margin parameters, models used to generate margin or guaranty fund requirements, and any other relevant aspects of OCC's credit risk management.

Under the proposed Policy, OCC's Model Validation Group would be required to perform a model validation of OCC's Clearing Fund model on an annual basis, and the Risk Committee would be responsible for reviewing the model validation report. The Risk Committee would also be required to review and approve the Policy on an annual basis.

Under the proposed Policy, stress test inventories would be maintained by STLRM, and the STWG would be required to review and approve or recommend changes to stress test

inventories recommended by STLRM staff in accordance with STWG procedures. The STWG would meet at least monthly and approve or recommend approval of changes to the inventory in accordance with the stress test procedures. The approval authority for such changes would be as follows:

- Informational Stress Tests – The STWG may approve the creation or retirement of Informational Stress Tests; and
- Sizing, Sufficiency, and Adequacy Stress Tests – The STWG may recommend approval to the Management Committee (however, if timing considerations make such recommendation to the Management Committee impracticable, then STWG would make its recommendation to the OCEO) and the Risk Committee the creation or retirement of Adequacy, Sizing, or Sufficiency Stress Tests

Pursuant to the proposed Policy, any request for an exception to the Policy must be made in writing to a member of the OCEO, who would then be responsible for reviewing the exception request and providing a decision in writing to the person requesting the exception. All requests for exceptions and their dispositions would be reported to the Board or Risk Committee no later than its next regularly scheduled meeting, in a format approved by the Chair of the Board or Risk Committee. Finally, the Policy would require that violations of the Policy be reported to the Policy owner and OCC's Chief Compliance Officer.

***6. Limitations on Reduction in Monthly Clearing Fund Size***

OCC also proposes to adopt rules imposing certain anti-procyclical measures for its monthly Clearing Fund sizing process. Under proposed Rule 1001(a), the size of the Clearing

Fund would not be permitted to decrease more than 5% from month-to-month to avoid pro-cyclicality. This limitation, which is also reflected in the proposed Policy and Methodology Description, is designed to promote stability and to prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the look-back period.

In addition, if the results of a daily Sufficiency Stress Test over the final five business days preceding the monthly Clearing Fund sizing exceed 90% of the projected Clearing Fund size for the upcoming month, the Clearing Fund size must be set such that the peak Sufficiency Stress Test draw is no greater than 90% of the Clearing Fund size. The proposed change is designed to reduce the likelihood that the Clearing Fund would be set at a size such that a Clearing Member Group with stress test exposures that are trending upward at the end of the sizing period would exceed the threshold for an intra-month resize immediately following the decline.

## ***7. Clearing Fund Contribution Allocations***

### ***a. Proposed Changes to Initial Contributions***

Pursuant to existing Article VIII, Section 2 of the By-Laws, the minimum initial Clearing Fund contribution of each newly admitted Clearing Member is set at an amount equal to at least \$150,000, which is also equal to OCC's minimum "fixed" contribution amount (discussed in detail below). Under proposed Rule 1002(d), which is based on existing Article VIII, Section 2(a), OCC would increase the initial Clearing Fund contribution amount to \$500,000. OCC's

existing minimum contribution requirements have been in place since June 5, 2000,<sup>36</sup> and as a result, OCC undertook an analysis to determine the appropriateness of this amount given the passage of time. As part of this analysis, OCC considered a number of factors such as the potential impact on Clearing Members that are at the minimum or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. For example, OCC notes that the minimum initial (and fixed) contribution requirement has remained static over time while the Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the proposed changes described herein. Additionally, OCC reviewed the contribution requirements of other CCPs and noted that they were well in excess of OCC's current minimum contribution requirement (and in several cases, would be in excess of the newly proposed minimum amount).<sup>37</sup> OCC also performed an analysis of Clearing Members that had a Clearing Fund contribution requirement larger than the

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<sup>36</sup> On June 5, 2000, the Commission approved a proposed rule change by OCC to merge the equity and non-equity elements of its Clearing Fund into a combined Clearing Fund with a minimum contribution requirement of \$150,000. See Securities Exchange Act Release No. 42897 (June 5, 2000), 65 FR 36750 (June 9, 2000) (SR-OCC-99-9). OCC notes that, as a practical matter, the \$150,000 minimum contribution amount dates back prior to June 2000 for the majority of its Clearing Members as most members already contributed to both the equity and non-equity elements of the Clearing Fund and were subject to a \$75,000 minimum contribution for each element prior to the June 2000 rule change.

<sup>37</sup> For example, at the time of OCC's analysis, ICE Clear US had a minimum contribution requirement of \$2,000,000 and CME had minimum contribution requirements of \$500,000 for exchange listed futures and options and \$2.5 million for OTC products covered in its Base Guaranty Fund.

current minimum requirement of \$150,000 but less than or equal to the proposed requirement of \$500,000.<sup>38</sup> OCC also reviewed the impact of this change and discussed it with potentially impacted Clearing Members firm, the majority of which did not express concerns over the proposed increase. As a result of this analysis, OCC determined \$500,000 would be the appropriate initial and minimum Clearing Fund contribution amount required to maintain membership at OCC. Consistent with existing authority, OCC's Risk Committee would also be able to fix a different initial contribution amount with regard to any new Clearing Member at the time its application is approved. In either case, the initial contribution amount would remain in effect for not more than three months after the admission of the relevant Clearing Member. After that time, or at an earlier time as may be determined by the Risk Committee, the Clearing Member's contribution amount would instead be determined using the allocated contribution method in proposed Rule 1003. OCC also proposes to clarify in new Rule 1002(d) that initial contribution requirements would at all times remain subject to the minimum "fixed amount" of \$500,000 under proposed Rule 1003 and to adjustments by OCC under Rule 1004.

***b. Proposed Changes to Contribution Allocation Methodology***

Current Rule 1001(b) provides, in part, that each Clearing Member's monthly contribution requirement is based on a sum of \$150,000 (which is a fixed amount, equal to the current initial contribution amount) plus such Clearing Member's proportionate share of the amount necessary for OCC to maintain the total Clearing Fund size required under Rule 1001(a)

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<sup>38</sup> Based on this analysis, OCC determined that there are currently eleven Clearing Members either subject to the minimum Clearing Fund contribution requirement of \$150,000 or below the proposed \$500,000 requirement that would be impacted by the proposal.

(which is a variable amount). OCC proposes to adopt new Rule 1003(a), which would increase the minimum “fixed” contribution amount to \$500,000, consistent with the proposed increase in the minimum initial contribution described above. Specifically, proposed Rule 1003(a) would provide that each Clearing Member’s contribution to the Clearing Fund shall equal the sum of (x) \$500,000 (a higher “fixed amount,” equal to the proposed initial contribution amount described above) and (y) such Clearing Member’s proportionate share of an amount sufficient to cause the amount of the Clearing Fund (after taking into account each Clearing Member’s fixed amount) to be equal to the Clearing Fund size determined pursuant to proposed Rule 1001(a) (the “variable amount”). The proposed change was determined under the same analysis and justification discussed above regarding the proposed change in the minimum initial contribution amount (i.e., OCC analyzed the potential impact on Clearing Members that are at the minimum fixed contribution amount or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory expectations on OCC given its status as a systemically important financial market utility). Collectively, proposed Rules 1002(d) and Rule 1003(a) would effectively provide for a new minimum Clearing Fund contribution amount of \$500,000 per Clearing Member.<sup>39</sup>

OCC also proposes to clarify in proposed Rule 1004, in line with its current operational

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<sup>39</sup> OCC notes that the current exception for Futures-Only Affiliated Clearing Members in By-Law Article VIII, Section 2 and Rule 1001(f) would be retained under proposed Rules 1002(d) and 1002(f).



practice, that OCC may adjust an individual Clearing Member's Clearing Fund contributions due to mergers, consolidations, position transfers, business expansions, membership approval, or other similar events in order to ensure that Clearing Fund allocations are appropriately aligned with the change in risks associated with such events (e.g., the increased risk a Clearing Member may present after taking on positions of another Clearing Member through a merger or position transfer).

#### ***8. Allocation Weighting Methodology***

Under existing Rule 1001(b), Clearing Fund contributions are allocated among Clearing Members based on a weighted average of each Clearing Member's proportionate share of total risk,<sup>40</sup> open interest, and volume in all accounts (including paired X-M accounts) according to the following weighting allocation methodology: 35% total risk, 50% open interest, and 15% volume. OCC proposes to modify its allocation methodology in new Rule 1003 to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they bring to OCC. Specifically, OCC proposes that Clearing Fund contribution requirements would be based on an allocation methodology of 70% total risk, 15% volume and 15% open interest.<sup>41</sup> OCC also proposes to modify the volume component of the weighting allocation methodology to

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<sup>40</sup> As noted above, "total risk" in this context means the margin requirement with respect to all accounts of the Clearing Member Group exclusive of the net asset value of the positions in such accounts aggregated across all such accounts.

<sup>41</sup> Under the proposed Policy, this new allocation approach would be phased in over a three month period following implementation of the proposed changes herein by gradually shifting 35% of the weighting to total risk from open interest by 10% in the first month, 10% in the second month, and 15% in the third month. Accordingly, OCC proposes conforming changes to delete Interpretation and Policy .03 of Rule 1001, which concerns the phase-in of the former allocation methodology, and would no longer be required.

provide that OCC would use cleared volume, as opposed to executed volume, to base the allocation on where the position is ultimately cleared.<sup>42</sup>

In addition, OCC proposes to adopt new Interpretation and Policy .02 of Rule 1003, which would be based without material amendment on the clauses in paragraphs (d) and (e) of current Rule 1001 that address how OTC options are included within the fraction used to compute a Clearing Member's proportionate share of open interest and volume, respectively. The numerator and denominator in each case would continue to include OTC option contracts within the number of open cleared contracts of a Clearing Member, with that number of OTC option contracts being adjusted to ensure that it is approximately equal to the number of options contracts, other than OTC option contracts, that would cover the same notional value or units of the same underlying interest. OCC believes that placing this aspect of the computation in an Interpretation and Policy would enhance the readability of Rule 1003(b).

OCC's contribution allocation and associated weighting methodology also would be generally described in the proposed Policy and Methodology Description documents.

### ***9. Reduction in Time to Fund Deficits***

OCC proposes to adopt new Rule 1005(a), which would address the time within which a Clearing Member would generally be required to satisfy a deficit in its required Clearing Fund contribution to reduce the timeframe during which OCC potentially would be operating with less

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<sup>42</sup> For both volume and open interest, OCC would adjust stock loan shares by a factor of 100 to normalize them with the size of a standard option contract. Interpretation and Policy .04 of existing Rule 1001, which concerns the calculation used to determine cleared contract equivalent units for stock loan and borrow positions, would be relocated to Interpretation and Policy .01 of proposed Rule 1003 without change.

than its required amount of Pre-Funded Financial Resources. As a general rule, whenever a report made available by OCC as described in proposed Rule 1007 shows a deficit, the applicable Clearing Member(s) would be required to satisfy the deficit in a form approved by OCC no later than one hour after being notified by OCC of such deficit. Examples of deficits that would need to be satisfied by this deadline include those caused by a decrease in the value of a Clearing Member's contribution or by an adjusted contribution pursuant to proposed Rule 1004. The one-hour deadline would be subject to the application of alternative timing requirements specified in Chapter X, such as in the case of deficits arising due to regular monthly sizing or an intra-month resizing (as addressed in proposed Rule 1005(b)), and deficits arising due to amendments of OCC's Rules (as addressed in proposed Rule 1002(e)). Proposed Rule 1004 would also provide OCC with discretion to agree to alternative written terms regarding the satisfaction of a deficit that would otherwise be governed by the requirements described above.

Proposed Rule 1005(b), which is based on existing Rule 1003 with certain modifications, would address deficits arising due to regular monthly sizing of the Clearing Fund under proposed Rule 1001(a), as well as due to intra-month sizing adjustments under proposed Rule 1001(c). The proposed provision would reduce the amount of time within which a Clearing Member must satisfy a deficit shown on a report made available by OCC under Rule 1007 from five business days of the date on which the report is made available to two business days of such date. OCC believes that this change is appropriate because it would expedite adjustment of Clearing Fund contributions to the appropriate size as determined by OCC and allow OCC to respond more

quickly in rapidly changing or emergency market conditions.

Proposed Rule 1002(e) would address the circumstance in which a Clearing Member's contribution is increased as a result of an amendment of OCC's Rules. The proposed provision is based on existing By-Law Article VIII, Section 2(b), modified, however, to require that such an increased contribution be satisfied within two business days of the Clearing Member receiving notice of the amendment, rather than within five business days of such notice (as is required under current By-Law Article VII, Section 2(b)). For the reasons noted above, OCC believes that this change is appropriate because it would expedite both the effectiveness of the increased contribution requirement (and, indirectly, the size of the Clearing Fund) and the actual funding of Clearing Member contributions related thereto. Consistent with OCC's current requirement, a Clearing Member would not be obligated to make such an increased contribution, however, if, before the effective date of the relevant amendment, it notifies OCC in writing that it is terminating its status as a Clearing Member and closes out or transfers all of its open long and short positions. In addition, newly proposed Interpretation and Policy .02 of Rule 1002 would clarify that the authority of a Clearing Member to terminate its status as such under Rule 1006(h) regarding assessments by OCC is separate and distinct from the analogous authority under Rule 1002(e) concerning membership terminations in connection with an increase in Clearing Fund contributions due to a change in OCC's Rules.

In addition, and consistent with existing operational practice, new Rule 1005(c) would establish that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an

amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. The proposed rule change is designed to ensure that OCC is able to obtain funds owed from its Clearing Members to satisfy a Clearing Fund deficit in a timely fashion so that OCC can continue to meet its overall financial resource requirements as stipulated under its rules and by applicable regulatory requirements. Any such withdrawn amount would thereafter be treated as a cash contribution to the Clearing Fund. The provision would also clarify that, if OCC is unable to withdraw an amount equal to the deficit, the Clearing Member's failure to satisfy such deficit in accordance with OCC's Rules may subject such Clearing Member to disciplinary action or suspension, including under Chapters XI and XII of OCC's Rules.

OCC also proposes to specify in proposed Rules 1005(b) and 1002(e) that Clearing Members shall have until 9:00AM Central Time on the second business day after the issuance of the Clearing Fund Status Report to meet their required Clearing Fund contribution if such contribution increases as a result of monthly Clearing Fund sizing or an intra-month resizing of the Clearing Fund. The proposed change would more closely align with the settlement time for the collection of other deficits (e.g., the required time for making good any deficiency generally under existing Article VIII, Section 6 of the By-Laws or for satisfying any margin deficits under Rule 605). The proposed change would also be reflected in the proposed Policy.

Finally, OCC proposes to relocate the substance of current Rule 1002 (regarding Clearing Fund reports) to proposed Rule 1007, with modifications that allow OCC to provide more real-time transparency to Clearing Members by mandating more frequent reporting, as well as certain modifications to address the intra-month resizing of the Clearing Fund. Current Rule 1002

provides that OCC must make available to each Clearing Member, within ten days after the close of each calendar month, a report that lists the current amount and form of such Clearing Member's contribution, the amount of the contribution required of such Clearing Member for the current calendar month, and any surplus over and above the amount required for the current calendar month. Under proposed Rule 1007, OCC would make available each business day certain reports listing the current amount and form of each Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member (including the Clearing Member's required cash contribution to the Clearing Fund, as discussed in more detail in Section 10 below) and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. OCC would also issue a report whenever the calculated size of the Clearing Fund has changed, whether as the result of regular monthly sizing of the Clearing Fund or otherwise.

***10. Anti-Procyclicality Measures in OCC's Margin Methodology***

OCC proposes to amend current Rule 601(c), regarding margin requirements for accounts other than customers' accounts and firm non-lien accounts, to clarify in OCC's Rules that OCC's existing methodology for calculating margin requirements incorporates measures designed to ensure that margin requirements are not lower than those that would be calculated using volatility estimated over a historical look-back period of at least ten years. The proposed change reflects an existing practice in OCC's margin methodology and is intended only to provide more clarity and transparency regarding this anti-procyclicality measure in OCC's Rules.

### *11. Other Clarifying, Conforming, and Organizational Changes*

OCC also proposes a number of other clarifying, conforming, and organizational changes to its By-Laws, Rules, Collateral Risk Management Policy, Default Management Policy, and Clearing Fund-related procedures in connection with the proposed enhancements to its Pre-Funded Financial Resources and the relocation of OCC's Clearing Fund-related By-Laws into Chapter X of the Rules. Specifically, proposed Rules 1006(a)–(c) would address both the purpose of the Clearing Fund and the seven conditions under which the Clearing Fund generally may be used by OCC to make good certain losses that it suffers. The proposed Rule is based on a consolidation of existing Article VIII, Section 1(a) (concerning the maintenance and purpose of the Clearing Fund) and Section 5(a)–(c) (concerning the application of the Clearing Fund) with minor modifications. Accordingly, under proposed Rule 1006, and consistent with existing authority, OCC would maintain, and be permitted to use, the Clearing Fund to make good losses relating to: (1) the failure of a Clearing Member to discharge an obligation on or arising from any confirmed trade accepted by OCC; (2) the failure of any Clearing Member or the Canadian Depository for Securities to perform its obligations under or arising from any exercised or assigned option contract or matured future or any other contract or obligation issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable;<sup>43</sup> (3) the failure of any Clearing Member in respect of its stock loan or borrow positions to perform its obligations to OCC; (4) any liquidation of a Clearing Member's open positions; (5) any protective transactions

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<sup>43</sup> OCC notes that proposed Rule 1006(a) would contain a minor modification to clarify that matured futures contracts are included within the scope of other contracts or obligations issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable.

effected for OCC's own account under Chapter XI of the Rules regarding the suspension of a Clearing Member; (6) the failure of any Clearing Member to make any required payment or render any required performance; or (7) the failure of any bank or securities or commodities clearing organization to perform obligations to OCC under certain conditions as set forth in proposed Rule 1006(c).<sup>44</sup>

Proposed Rule 1006(g) would address payments to and from Cross-Guaranty Parties<sup>45</sup> in respect of Common Members.<sup>46</sup> This provision is based on current Article VIII, Sections 5(f) and 5(g) of OCC's By-Laws, which would be transferred to Rule 1006(g) without material changes. OCC would, therefore, continue to use a suspended Clearing Member's Clearing Fund contribution, after appropriately applying other funds in the accounts of the Clearing Member, to make a required payment to a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of such Clearing Member. Proposed Rule 1006(g) would clarify, however, that OCC would credit funds to the Clearing Fund that it receives in respect of a suspended

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<sup>44</sup> Existing Interpretation and Policy .01 and .02 of Article VIII, Section 5 concerning the share of any deficiency to be borne by each Clearing Member as a result of a charge against the Clearing Fund would be consolidated and relocated to new Interpretation and Policy .01 of Rule 1006 with only minor, non-substantive conforming changes and cross-references to new Interpretation and Policy .01 of Rule 1006 would be added to proposed Rules 1006(b) and (c) to provide additional clarity in OCC's rules.

<sup>45</sup> A Cross-Guaranty Party is a party, other than OCC, to a Limited Cross Guaranty Agreement, which is an agreement between OCC and one or more other clearing corporations and/or clearing organizations relating to the cross-guaranty by OCC and the other party or parties of certain obligations of a suspended Common Member to the parties to the agreement. See Article I, Section 1.C.(35) of the By-Laws (defining Cross-Guaranty Party) and Section 1.L.(4) (defining Limited Cross-Guaranty Agreement).

<sup>46</sup> A Common Member is "a Clearing Member that is concurrently a member or participant of a Cross-Guaranty Party." See Article I, Section 1.C.(27) of the By-Laws.



Clearing Member from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement, where OCC must still make a charge on a proportionate basis against other Clearing Members' required contributions to the Clearing Fund even after application of such funds, or where OCC has already made a charge on a proportionate basis against other Clearing Members' required contributions to the Clearing Fund.

Proposed Interpretation and Policy .02-.04 to Rule 1006 would also address certain aspects of payments to and from Cross-Guaranty Parties in respect of Common Members. All of these proposed provisions are based without material amendment on existing Interpretations and Policies to Article VIII, Section 5 of OCC's By-Laws, as described below.

Proposed Interpretation and Policy .02 to Rule 1006 is based without material amendment on existing Interpretation and Policy .03 to Article VIII, Section 5 of OCC's By-Laws. Under the proposed Interpretation and Policy, if OCC has a deficiency after it applies all the available funds of a suspended Common Member but cannot determine whether, when, or in what amount it will be entitled under a Limited Cross-Guaranty Agreement to receive funds from a Cross-Guaranty Party, OCC may make a charge against other Clearing Members' contributions for the deficiency in accordance with Rule 1006(b). If OCC receives funds from a Cross-Guaranty Party after making such a charge, OCC would credit the funds to the Clearing Fund in accordance with Rule 1006(g).

Proposed Interpretation and Policy .03 to Rule 1006 is based without material amendment on existing Interpretation and Policy .04 to Article VIII, Section 5 of OCC's By-Laws. Under the proposed Interpretation and Policy, if OCC has a deficiency after it applies all

the available funds of a suspended Common Member and OCC determines that it is likely to receive funds from a Cross-Guaranty Party under a Limited Cross-Guaranty Agreement, OCC may, in anticipation of receipt of such funds, forego making a charge, or make a reduced charge in accordance with proposed Rule 1006(b), against other Clearing Members' Clearing Fund contributions. If OCC does not subsequently receive the funds or receives a smaller amount than anticipated, OCC may make a charge or additional charges against contributions in accordance with proposed Rule 1006(b).

Proposed Interpretation and Policy .04 to Rule 1006 is based without material amendment on existing Interpretation and Policy .05 to Article VIII, Section 5 of OCC's By-Laws. Under the proposed Interpretation and Policy, if, under a Limited Cross-Guaranty Agreement, OCC receives funds from a Cross-Guaranty Party in respect of a suspended Common Member but is subsequently required to return such funds for any reason, OCC may make itself whole by making a charge or additional charges, as the case may be, against the contributions of Clearing Members, other than the suspended Common Member.

Existing Article VIII, Section 1(b) of OCC's By-Laws, which concerns the general lien on all cash, Government securities, and other property of the Clearing Member contributed to the Clearing Fund, would be moved without material change to new Rule 1006(i). Additionally, existing Interpretation and Policy .02 of Article VIII, Section 3 of OCC's By-Laws, which concerns the treatment of securities deposited in an account of OCC at an approved custodian, would be relocated to new Rule 1006(j) without change.

OCC also proposes to relocate existing Article VIII, Sections 5(c), and (e) of OCC's By-

Laws, which concern notice of any charges against the Clearing Fund, the use of current and retained earnings to address losses, and the use of the Clearing Fund to effect borrowings, to new Rules 1006(d), (e), and (f),<sup>47</sup> respectively, without material amendment.<sup>48</sup> OCC would also relocate existing Article VIII, Section 6 of OCC's By-Laws, which concerns the making good of any charges against the Clearing Fund (i.e., Clearing Fund replenishment and assessments) to new Rule 1006(h) without material changes.<sup>49</sup> The proposed Policy and Methodology Description would also contain a discussion of OCC's Clearing Fund replenishment and assessment powers generally intended to reflect this existing authority in the By-Laws. In addition, the proposed Policy would (1) provide the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer with the authority to approve proportionate charges against the Clearing Fund and (2) require that OCC's Accounting department maintain procedures for the allocation of losses due to a Clearing Member default and to replenish the Clearing Fund in

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<sup>47</sup> Under clause (i) of new Rule 1006(f), OCC would also be permitted to take possession of Government securities in anticipation of a potential default by or suspension of a Clearing Member, as is currently the case under existing Interpretation and Policy .06 to Article VIII, Section 5.

<sup>48</sup> OCC notes that it would make a number of non-substantive clarifying changes to the rule text in proposed Rule 1006 so that existing rule text referencing "computed contributions to the Clearing Fund" and "as fixed at the time" would be rephrased as "required contributions to the Clearing Fund" and "as calculated at the time." The proposed change is designed to more accurately reflect that these rules are intended to refer to a Clearing Member's required Clearing Fund contribution amount as calculated under the proposed Rules, Policy and Methodology Description and eliminate any potential confusion with a Clearing Member's "fixed amount" as determined under Rule 1003(a).

<sup>49</sup> OCC notes that it would modify the rule text in question to clarify that a Clearing Member's obligation to make good the deficiency in its Clearing Fund contribution, resulting from a proportionate charge or otherwise, would be in relation to its currently "required" contribution amount and not the amount of the contribution on deposit as of the time of the charge.

the event a deficiency in the Clearing Fund results from events other than those specified in proposed Rule 1006.

Additionally, OCC proposes to amend the definition of “Clearing Fund” in Article I and Article V, Section 3 of the By-Laws to reflect the fact that OCC’s Clearing Fund-related provisions would now be contained in Chapter X of the Rules. In addition, OCC proposes to change references to “Chapter 11” of the Rules in Article VI, Section 27 of OCC’s By-Laws to “Chapter XI” To conform the references to OCC’s Rules. OCC proposes conforming changes to Rule 1106 to reflect the reorganization of Article VIII of the By-Laws into Chapter X of the Rules. OCC also proposes to amend Rule 609 to change the term “securities” to “contracts” to clarify that its authority to call for intra-day margin also applies to non-securities products cleared by OCC.

OCC also proposes conforming changes to delete existing Interpretations and Policies .02 and .03 of Rule 1001, which deal with the minimum confidence level used to size the Clearing Fund and the phase-in of the former weighting allocation methodology, respectively. Under the proposed change, the confidence level used to size the Clearing Fund and the phase-in of the proposed weighting allocation methodology would be addressed in the Policy and Methodology Description (as described above). As a result, these Interpretations and Policies would no longer be needed.

In addition, consistent with its effort to aggregate all Clearing Fund-related provisions to Chapter X of the Rules, OCC proposes to relocate Article VIII, Sections 7 (Contribution Refund) and 8 (Recovery of Loss) of the By-Laws to new Rules 1009, and 1010, respectively, without

material amendment.

OCC also proposes to relocate certain By-Law provisions related to the form and method of Clearing Fund contributions into Chapter X of the Rules. Specifically, OCC proposes to relocate Article VIII, Section 3(a) and (c); Interpretation and Policy .04 to Article VIII, Section 3; and Article VIII, Section 4 to proposed Rule 1002 concerning Clearing Fund contributions. These By-Law provisions would be relocated to Chapter X of the Rules without material amendment. OCC also would relocate Interpretation and Policy .01 to Rule 1001 concerning minimum Clearing Fund size into new Rule 1001(b). The form and method of OCC's Clearing Fund contributions also would be generally described in the proposed Policy and Methodology Description documents. In addition, and consistent with current OCC practice, the proposed Policy would impose a requirement that the specific securities eligible to be used as Clearing Fund contributions be permitted to be pledged in exchange for cash through one of OCC's committed liquidity facilities so that OCC continues to maintain sufficient eligible securities to fully access such facilities.

As noted above, under proposed Rule 1007, OCC would make available on a daily basis certain reports listing the current amount and form of each Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member, and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. Proposed Rule 1007 would also include reporting on the Clearing Member's required cash contribution to the Clearing Fund.

OCC also proposes to relocate existing Rule 1004 (Withdrawals) to new Rule 1008 and

would modify the proposed rule to reflect that Clearing Members may withdraw excess Clearing Fund deposits on the same day that OCC issues a report to the Clearing Member showing a surplus (as opposed to the following business day), which is consistent with current operational practices.

In addition, OCC proposes to update references to Article VIII of the By-Laws in its Collateral Risk Management Policy and Default Management Policy to reflect the relocation of OCC's Clearing Fund-related By-Laws into Chapter X of the Rules.

Finally, OCC currently maintains procedures regarding its processes for (i) the monthly resizing of its Clearing Fund (Monthly Clearing Fund Sizing Procedure), (ii) the addition of financial resources through intra-day margin calls and/or an intra-month increase of the Clearing Fund to ensure that it maintains adequate financial resources in the event of a default of a Clearing Member/Clearing Members Group presenting the largest exposure to OCC (FRMC Procedure), and the execution of any intra-month resizing of the Clearing Fund (Clearing Fund Intra-Month Re-sizing Procedure).<sup>50</sup> OCC proposes to retire its existing Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure as these procedures would no longer be relevant to OCC's proposed Clearing Fund and stress test methodology and would be replaced by the proposed Rules, Policy and Methodology Description described herein.

OCC's Monthly Clearing Fund Sizing Procedure provides that the Clearing Fund is resized on the first business day of each month by identifying the peak five-day rolling average

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<sup>50</sup> See supra note 8.

of Clearing Fund Draws (using OCC’s current Clearing Fund methodology) over the most recent three-month period. This peak five-day rolling average is supplemented with a prudential margin of safety of \$1.8 billion. The Monthly Clearing Fund Sizing Procedure further describes the internal procedural and administrative steps taken by OCC staff in the monthly Clearing Fund sizing processes (e.g., the internal reports and processes used to populate relevant data and calculate the monthly Clearing Fund size and the internal reporting and notifications made by OCC staff during the resizing process). Under the proposed Policy and Methodology Description, OCC would continue to determine the Clearing Fund size for a given month by using a peak five-day rolling average of Clearing Fund Draws over the prior three months; however, these calculations would be done using the proposed Sizing Stress Test results and would no longer require a prudential margin of safety.<sup>51</sup> The remaining internal procedural and administrative steps taken by OCC staff in the monthly Clearing Fund sizing processes would no longer be “rules” of OCC as defined by the Exchange Act<sup>52</sup> as those aspects of the procedure: (1) would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodologies

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<sup>51</sup> See supra note 19.

<sup>52</sup> Section 19(b)(1) of the Exchange Act requires a self-regulatory organization (“SRO”) such as OCC to file with the Commission any proposed rule or any proposed change in, addition to, or deletion from the rules of such SRO. See 15 U.S.C. 78s(b)(1). Section 3(a)(27) of the Exchange Act defines “rules of a clearing agency” to mean its (1) constitution, (2) articles of incorporation, (3) bylaws, (4) rules, (5) instruments corresponding to the foregoing and (6) such “stated policies, practices and interpretations” (“SPPI”) as the Commission may determine by rule. See 15 U.S.C. 78c(a)(27). Exchange Act Rule 19b-4(a)(6) defines the term “SPPI” to mean, in addition to certain publicly facing statements, “any material aspect of the operation of the facilities of the [SRO].” See 17 CFR 240.19b-4(a)(6). Rule 19b-4(c) provides, however, that an SPPI may not be deemed to be a proposed rule change if it is: (i) reasonably and fairly implied by an existing rule of the SRO or (ii) concerned solely with the administration of the SRO and is not an SPPI with respect to the meaning, administration, or enforcement of an existing rule the SRO.

and processes, (2) would be reasonably and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC's Clearing Fund-related operations.<sup>53</sup>

OCC's FRMC Procedure outlines various responsibilities, deliverables and communications with respect to OCC's financial resource monitoring and resource call processes. While the FRMC Procedure describes material aspects of OCC's current financial resource monitoring and call-related operations, it also describes the non-material procedural and administrative steps taken by OCC staff in carrying out these processes. For example, the FRMC Procedure contains procedural steps for (1) comparing Clearing Fund Draws against the Clearing Fund size and determining whether applicable thresholds are breached, (2) internal notifications and reporting within OCC regarding the imposition of enhanced monitoring or recommendations for margin calls or intra-month resizing of the Clearing Fund,<sup>54</sup> (3) other external communications to Clearing Members<sup>55</sup> regarding margin calls, and (4) determining whether a cash draft is required to satisfy a deficit resulting from a margin call. Under the

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<sup>53</sup> OCC notes that it would adopt new internal procedures to address the procedural and administrative steps associated with the monthly Clearing Fund sizing, Clearing Fund sufficiency monitoring, and intra-month resizing processes; however, these procedures would not be filed as "rules" of OCC under the Exchange Act. These procedures also would conform to the proposed changes described herein.

<sup>54</sup> OCC notes that the weekly reporting process currently described in the FRMC Procedure would no longer be codified in the "rules" of OCC; however, the proposed Policy would establish new governance, monitoring and review requirements for OCC's Clearing Fund and stress testing methodology, which are described in detail above.

<sup>55</sup> The proposed Policy would contain a general requirement that Clearing Members be notified of any intra-day margin calls under the policy but the procedural details of such notification would be contained in the Clearing Fund Sufficiency Monitoring Procedure.



proposal, the proposed Policy would continue to describe the material aspects of OCC's Clearing Fund operations as they relate to the financial resource monitoring and resource call process under the new Clearing Fund and stress testing methodology, subject to a number of modifications describe above.<sup>56</sup> Any remaining procedural details would not be "rules" of OCC as OCC believes that those aspects of the procedures: (1) would no longer be relevant to OCC's proposed Clearing Fund and stress testing methodologies and processes, (2) would be reasonably and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC's Clearing Fund-related operations.

OCC's Clearing Fund Intra-Month Re-sizing Procedure outlines the various internal responsibilities, deliverables and communications with respect to an intra-month re-sizing the Clearing Fund as determined under the FRMC Procedure. The procedure describes the procedural and administrative steps taken by OCC staff in the intra-month resizing process, including the procedural steps for (1) calculating increased contribution requirements based on various internal reports and processes, (2) preparing information memoranda announcing an intra-month resizing, (3) internal notifications and reporting within OCC regarding an intra-month resizing, (4) other external communications to Clearing Members<sup>57</sup> and OCC's regulators regarding an intra-month resizing of the Clearing Fund, and (5) determining whether a cash draft

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<sup>56</sup> See e.g., supra notes 30-34 and associated text.

<sup>57</sup> The proposed Policy would contain a general requirement that Clearing Members, OCC's Risk Committee, and OCC's regulators be notified of any intra-month Clearing Fund resizing but the procedural details of such notification would be contained in the Clearing Fund Sizing Procedure.

is required to satisfy a deficit resulting from an intra-month resizing of the Clearing Fund. Under the proposed changes described herein, these procedural details would not be “rules” of OCC as OCC believes that those aspects of the procedure: (1) would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodologies and processes, (2) would be reasonably and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC’s Clearing Fund-related operations.

**B. Statutory Basis**

Section 17A(b)(3)(F) of the Act<sup>58</sup> requires, among other things, that the rules of a clearing agency be designed to promote the prompt and accurate clearance and settlement of securities and derivatives transactions, to assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, to protect investors and the public interest. OCC believes that the proposed changes, and in particular, the new Clearing Fund and stress testing methodology, would both enhance OCC’s risk management capabilities as well as promote OCC’s ability to more thoroughly size, monitor and test the sufficiency of its Pre-Funded Financial Resources under a wide range of hypothetical and historical stress scenarios. The proposed Clearing Fund and stress testing methodology is designed to improve OCC’s ability to calibrate its Pre-Funded Financial Resources to withstand a broader range of extreme but plausible circumstances under which its one or two largest Clearing Members may default, thereby reducing the risk that such resources would be insufficient in an actual default.

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<sup>58</sup> 15 U.S.C. 78q-1(b)(3)(F).

As a result, the proposed rule change is designed, in general, to enhance OCC's framework for measuring and managing its credit risks so that it can continue to provide prompt and accurate clearance and settlement of securities and derivatives transactions, assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, protect investors and the public interest consistent with Section 17A(b)(3)(F) of the Act.<sup>59</sup>

As noted above, the proposed Clearing Fund and stress testing methodology would enhance OCC's framework for testing the sizing, adequacy, and sufficiency of its Pre-Funded Financial Resources by incorporating a wide range of extreme hypothetical and historical stress scenarios. Under the proposal, OCC would establish a new risk tolerance with respect to sizing OCC's Pre-Funded Financial Resources to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period. As noted above, OCC believes that a 1-in-50 year hypothetical market event represents the outer range of extreme but plausible scenarios for OCC's cleared products. As a result, OCC would size its Clearing Fund based on more conservative 1-in-80 year Hypothetical Scenarios, and would do so under a more conservative Cover 2 Standard, so that OCC sizes its Clearing Fund on a monthly basis at a level designed to cover its potential exposures under extreme but plausible market conditions. Moreover, OCC would utilize Sufficiency Stress Tests to evaluate the sufficiency of its Pre-Funded Financial Resources against potential credit exposures arising from range of scenarios to determine whether OCC should: (1) implement the enhanced monitoring of Clearing Fund

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<sup>59</sup> Id.

Draws, (2) require additional margin deposits, or (3) re-size the Clearing Fund on an intra-month basis so that OCC continues to maintain sufficient financial resources to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure in extreme but plausible market conditions. Moreover, the proposed changes would introduce a number of Informational Stress Tests that would serve as valuable risk management tools for OCC to monitor and assess its Pre-Funded Financial Resources against a wide range of scenarios, including but not limited to extreme but implausible and reverse stress test scenarios.

The proposed changes also would introduce certain anti-procyclical measures into the monthly Clearing Fund sizing process designed to limit the potential decrease of the Clearing Fund's size from month to month and therefore reduce the likelihood that a market shock would require OCC to call for further resources from Clearing Members on an intra-month basis. The measures would prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the three month look-back period, and also reduce the likelihood that the Clearing Fund would be set at a size such that a Clearing Member Group with stress test exposures that are trending upward at the end of the sizing period would exceed the threshold for an intra-month resize immediately following monthly resizing of the Clearing Fund.

Taken together, OCC believes that the proposed changes to its Clearing Fund and stress testing methodology and Policy are designed to improve OCC's ability to calibrate its Pre-Funded Financial Resources, and when necessary, call for additional financial resources from its Clearing Members, so that it can withstand a wide range of stress scenarios under which its one

or two largest Clearing Members may default, thereby reducing the risk that such resources would be insufficient in an actual default and enhancing OCC's ability to manage risks in its role as a systemically important financial market utility. As a result, OCC believes the proposed rule change is designed to enable OCC to manage its credit risks so that it can continue providing prompt and accurate clearance and settlement of securities and derivatives transactions, assuring the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, protect investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>60</sup>

OCC also proposes to increase its minimum initial and fixed Clearing Fund contribution amounts from \$150,000 to \$500,000. The proposed change would require a small subset of OCC's Clearing Members to contribute a relatively modest increase in their mutualized contribution to OCC's Clearing Fund (at most, a \$350,000 increase). In proposing the new minimum contribution amounts, OCC analyzed, among other things, the potential impact on Clearing Members that are at the minimum or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. In particular, OCC notes that its existing initial and minimum fixed contribution requirements have been in place since June 5, 2000, while its Clearing Fund has grown from approximately \$2 billion in 2000 to

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<sup>60</sup> Id.

several multiples of that, both currently and under the proposal described herein.<sup>61</sup> OCC believes that the proposed increase is appropriate given the increase in OCC's overall Clearing Fund size and is in line with or lower than the minimum requirements of other CCPs.<sup>62</sup> OCC believes the proposed change to its minimum contribution amounts would require Clearing Members to contribute an appropriate amount of mutualized resources to OCC's default waterfall and is therefore designed to protect investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>63</sup>

Additionally, OCC proposes to modify its allocation weighting methodology to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they present to OCC. Specifically, under the proposed Policy, Clearing Fund contribution requirements would be based on an allocation methodology of 70% of total risk, 15% of volume and 15% of open interest (as opposed to the current weighting of 35% total risk, 50% open interest, and 15% volume). In addition, OCC proposes to modify the volume component of its Clearing Fund contribution allocation weighting methodology to provide that OCC would use cleared volume, as opposed to executed volume, to base the volume component of the allocation on where the position is ultimately cleared as opposed to where it was executed. OCC believes that these changes would better align incentives for each Clearing Member to reduce the risk it introduces to the Clearing Fund by determining each Clearing Member's proportionate share of

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<sup>61</sup> See supra note 36 and accompanying text.

<sup>62</sup> See supra note 37.

<sup>63</sup> 15 U.S.C. 78q-1(b)(3)(F).

the Clearing Fund based on the risk it presents to OCC. As a result, OCC believes the proposed rule change is designed, in general, to protect investors and the public interest consistent with Section 17A(b)(3)(F) of the Act.<sup>64</sup>

OCC also proposes a number of changes to its Rules to generally reduce the time for Clearing Members to fund Clearing Fund deficits. Specifically, new Rule 1005(a) would require that a Clearing Member satisfy any deficit in its required Clearing Fund contribution resulting from a decrease in the value of a Clearing Member's contribution or by an adjusted contribution pursuant to proposed Rule 1004 by no later than one hour after being notified by OCC of such deficit. In addition, OCC would reduce the amount of time within which a Clearing Member must satisfy a deficit from five business days of the date on which the report is made available to two business days of such date for any deficit arising due to regular monthly sizing of the Clearing Fund, an intra-month resizing of the Clearing Fund, or in circumstance in which a Clearing Member's contribution is increased as a result of an amendment of OCC's Rules. Additionally, and consistent with existing operational practice, the proposed changes would specify that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. OCC also proposes to specify that Clearing Members shall have until 9:00AM Central Time on the second business day after the issuance of the Clearing Fund Status Report to meet their required Clearing Fund contribution if such contribution increases as a result

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<sup>64</sup> Id.

of monthly Clearing Fund sizing or an intra-month resizing of the Clearing Fund to more closely align with the settlement time for the collection of other deficits (e.g., the required time for making good any deficiency generally under existing Article VIII, Section 6 of the By-Laws or for satisfying any margin deficits under Rule 605). The proposed change is designed to ensure that OCC is able to obtain funds owed from its Clearing Members in a timely fashion so that OCC can continue to meet its overall financial resource requirements, thereby reducing the risk presented to OCC. As a result, OCC believes the proposed rule change is designed to enable OCC to manage its credit risks so that it can continue providing prompt and accurate clearance and settlement of securities and derivatives transactions, assuring the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, protect investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>65</sup>

OCC also proposes a number of non-material changes, such as relocating provisions of OCC's By-Laws concerning the Clearing Fund to its Rules, making other clarifying and conforming changes to its Rules, Collateral Risk Management Policy and Default Management Policy, and clarifying certain pro-cyclicality measures in its existing margin methodology, which are not expected to have any impact on OCC's risk management practices or the risk presented to OCC or its participants. OCC believes that making these clarifying and conforming changes to its rules would provide more clarity around, and enhance the readability of, OCC's Clearing Fund requirements and thereby provide OCC's members and the public a clearer understanding

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<sup>65</sup> Id.



of OCC's rules. OCC believes, therefore, that its rules following incorporation of the proposed changes, would be designed to, in general, protect the investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>66</sup>

Taken together, OCC believes the enhancements discussed in this proposed rule change would provide for a more comprehensive approach to managing OCC's credit risks and would allow OCC to more accurately measure its credit risk exposures, better test the sufficiency of its financial resources, and respond quickly when OCC believes additional financial resources are required. Accordingly, for the reasons set forth above, OCC believes that the proposed rule change would enhance OCC's ability to measure and manage its credit risks and is therefore designed to promote the promote and accurate clearance and settlement of securities and derivatives transactions, to assure the safeguarding of securities and funds in the custody or control of the clearing agency or for which it is responsible, and, in general, to protect investors and the public interest in accordance with Section 17A(b)(3)(F) of the Act.<sup>67</sup>

OCC further believes the proposed rule change is consistent with the Act and the rules thereunder for the reasons set forth below.

### **Clearing Fund Sizing and Sufficiency Changes**

Rule 17Ad-22(b)(3)<sup>68</sup> requires a registered clearing agency that performs CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed

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<sup>66</sup> Id.

<sup>67</sup> Id.

<sup>68</sup> 17 CFR 240.17Ad-22(b)(3).

to maintain sufficient financial resources to withstand, at a minimum, a default by the participant family to which it has the largest exposure in extreme but plausible market conditions. Rules 17Ad-22(e)(4)(iii) and (iv)<sup>69</sup> further require, in part, that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by maintaining additional financial resources (beyond those collected as margin or otherwise maintained to meet the requirements of Rule 17Ad-22(e)(4)(i)<sup>70</sup>) at the minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions and do so exclusive of assessments for additional guaranty fund contributions or other resources that are not prefunded.

OCC believes that the proposed changes to its By-Laws, Rules and Clearing Fund and stress testing methodology are reasonably designed to measure and manage OCC's credit exposures to participants by maintaining sufficient Pre-Funded Financial Resources to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure in extreme but plausible market conditions. In order to achieve this, OCC proposes to establish a risk tolerance with regard to the sizing of the Clearing Fund equal to a 1-in-50 year hypothetical

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<sup>69</sup> 17 CFR 240.17Ad-22(e)(4)(iii) and (iv).

<sup>70</sup> 17 CFR 240.17Ad-22(e)(4)(i)

market event, which OCC believes represents the outer range of extreme but plausible scenarios for OCC's cleared products for purposes of Rule 17Ad-22(e)(4) under the Act.<sup>71</sup> In order to ensure sufficient coverage of this risk tolerance, which OCC believes represents the outer range of extreme but plausible market conditions for the purposes of Rule 17Ad-22(e)(4) under the Act,<sup>72</sup> and to guard against intra-month scenario volatility and procyclicality, OCC proposes to size its Clearing Fund based on a more conservative 1-in-80 year hypothetical market event (i.e., the Sizing Stress Tests) on a Cover 2 Standard. The proposed changes are designed to size the Clearing Fund at a level that would be expected to cover OCC's potential exposures under extreme but plausible market conditions. In addition, OCC's Rules, Policy, and Methodology Description would provide for the collection of additional resources on an intra-month basis if certain Sufficiency Scenario thresholds are breached, as discussed in more detail above. These stress tests are designed, in total, to result in the collection of sufficient Pre-Funded Financial Resources (which by definition in the Policy would exclude OCC's replenishment and assessment powers), and when necessary call for additional financial resources, to cover a wide range of stress scenarios, including extreme but plausible market conditions.

Additionally, the proposed changes to avoid pro-cyclicality in the Clearing Fund (e.g., preventing the Clearing Fund from decreasing more than 5% from month-to-month and using a three-month look back period in sizing the Clearing Fund) are designed to promote stability and to prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the look-

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<sup>71</sup> 17 CFR 240.17Ad-22(e)(4).

<sup>72</sup> Id.

back period. OCC believes that this conservative approach to anti-procyclicality would help to ensure that OCC continues to maintain adequate Pre-Funded Financial Resources during periods where volatility decreases significantly, market conditions change rapidly, or Clearing Member business activity causes a significant decrease in stress test results.

OCC further believes that the proposed changes to its Rules to generally reduce the timeframe in which Clearing Members must meet deficits in their Clearing Fund contributions are appropriate because it would expedite the adjustment of Clearing Fund contributions to the appropriate size as determined by OCC's new Clearing Fund and stress test methodology, thereby allowing the Clearing Fund to respond more quickly in rapidly changing or emergency market conditions. Moreover, consistent with existing operational practice, new Rule 1005(c) would establish that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. The proposed rule change is designed to ensure that OCC is able to obtain funds owed from its Clearing Members in a timely fashion so that OCC can continue to meet its overall financial resource requirements. OCC believes the proposed changes would help to ensure that OCC maintains sufficient resources to meet its financial resource requirements under Rule 17Ad-22.<sup>73</sup>

For these reasons, OCC believes the proposed changes are reasonably designed so that OCC can measure and manage its credit exposure to its participants through the maintenance of

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Id.

additional financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions, and do so exclusive of assessments for additional Clearing Fund contributions or other resources that are not prefunded, in a manner consistent with Rule 17Ad-22(b)(3) and Rules 17Ad-22(e)(4)(iii) and (iv).<sup>74</sup>

### **Proposed Stress Testing and Clearing Fund Methodology**

Rule 17Ad-22(e)(4)(vi)(A)<sup>75</sup> requires, in part, that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by testing the sufficiency of its total financial resources available to meet the minimum financial resource requirements under Rule 17Ad-22(e)(4)(iii)<sup>76</sup> by conducting stress testing of its total financial resources once each day using standard predetermined parameters and assumptions.

OCC proposes to adopt a new stress testing methodology, as described in the proposed Policy and Methodology Description, to enable OCC to conduct a variety of Sizing Stress Tests, Adequacy Stress Tests, Sufficiency Stress Tests and Informational Stress Tests, each of which play different but complementary roles in promoting OCC's ability to more robustly identify,

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<sup>74</sup> 17 CFR 240.17Ad-22(b)(3) and (e)(4)(iii) and (iv).

<sup>75</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(A).

<sup>76</sup> 17 CFR 240.17Ad-22(e)(4)(iii).

measure, monitor and manage its credit risks to its participants. These stress tests would be run on a daily basis using standard predetermined parameters and assumptions and would allow OCC to test the sufficiency of its Pre-Funded Financial Resources under a wide range of Historical Scenarios, which take into account stresses on a number of factors such as price and volatility, as well as testing the adequacy of OCC's Pre-Funded Financial Resources with respect to its proposed risk tolerance. In turn, these stress tests would enable OCC to more effectively design margin and Clearing Fund requirements that are calibrated to cover Clearing Member defaults under such scenarios. The proposed Clearing Fund and stress testing methodology would also use Sufficiency Stress Tests to determine whether OCC should call for additional collateral to ensure that it consistently maintains sufficient financial resources. OCC believes that the proposed changes are therefore designed to allow OCC to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, by testing the sufficiency of its Pre-Funded Financial Resources available to meet its minimum financial resource requirements under Rule 17Ad-22<sup>77</sup> in a manner consistent with Rule 17Ad-22(e)(4)(vi).<sup>78</sup>

### **Clearing Fund and Stress Testing Governance, Monitoring, and Review**

Rule 17Ad-22(e)(4)(vi) and (vii)<sup>79</sup> require, in part, that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed

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<sup>77</sup> 17 CFR 240. 17Ad-22.

<sup>78</sup> 17 CFR 240. 17Ad-22(e)(4)(vi).

<sup>79</sup> 17 CFR 240. 17Ad-22(e)(4)(vi)(B)-(D) and (vii).

to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by (i) conducting a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and considering modifications to ensure they are appropriate for determining the covered clearing agency's required level of default protection in light of current and evolving market conditions; (ii) conducting a comprehensive analysis of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by the covered clearing agency's participants increases significantly; (iii) reporting the results of such analyses to appropriate decision makers at the covered clearing agency, including but not limited to, its risk management committee or board of directors, and using these results to evaluate the adequacy of and adjust its margin methodology, model parameters, models used to generate clearing or guaranty fund requirements, and any other relevant aspects of its credit risk management framework, in supporting compliance with the minimum financial resources requirements; and (iv) performing a model validation for its credit risk models not less than annually or more frequently as may be contemplated by the covered clearing agency's risk management framework.

The proposed Policy would set forth requirements for the daily and monthly monitoring, review, and reporting of stress test results. Specifically, under the Policy, STLRM would monitor the results of all of the Adequacy and Sufficiency Stress Tests on a daily basis and

immediately escalate any material issues identified with respect to the adequacy of OCC's financial resources to the STWG and the Management Committee to determine if it would be appropriate to recommend a change to the stress test scenarios used to size the Clearing Fund. In addition, the Policy would require that STWG perform a comprehensive monthly analysis of OCC's stress testing results, as well as information related to the scenarios, models, parameters, and assumptions impacting the sizing of the Clearing Fund and evaluate their appropriateness for determining OCC's required level of financial resources in light of current and evolving market conditions. Moreover, the Policy would require that such review be conducted more frequently than monthly when the products cleared or markets served display high volatility or become less liquid; the size or concentration of positions held by OCC's participants increases significantly; or as otherwise appropriate.

Pursuant to the proposed Policy, STLRM would report the results of stress tests and its comprehensive monthly analysis to OCC's Management Committee and Risk Committee on at least a monthly basis and would maintain procedures for determining whether, and in what circumstances, the results of such stress tests should be reported to the Management Committee or the Risk Committee more frequently than monthly, and would indicate the persons responsible for making that determination. In the performance of the monthly review of stress testing results and analysis and considering whether escalation is appropriate, the Policy would require that due consideration be given to the intended purpose of the Policy to: (a) assess the adequacy of, and adjust as necessary, OCC's total amount of financial resources; (b) support compliance with the minimum financial resources requirements under applicable regulations; and (c) evaluate the



adequacy of, and recommend adjustments to OCC's margin methodology, margin parameters, models used to generate margin or guaranty fund requirements, and any other relevant aspects of OCC's credit risk management.

In addition, the proposed Policy would require that OCC's Model Validation Group perform a model validation of OCC's Clearing Fund model on an annual basis and that the Risk Committee would be responsible for reviewing the model validation report.

Based on the foregoing, OCC believes that the proposed Policy is reasonably designed to ensure that OCC: (i) conducts a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and considers modifications to ensure they are appropriate for determining OCC's required level of default protection in light of current and evolving market conditions; (ii) conducts a comprehensive analysis of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by OCC's participants increases significantly; (iii) reports the results of such analyses to appropriate decision makers, including but not limited to, OCC's Management Committee and the Risk Committee of the Board, and uses these results to evaluate the adequacy of and adjust its margin methodology, model parameters, models used to generate Clearing Fund requirements, and any other relevant aspects of its credit risk management framework, in supporting compliance with the minimum financial resources requirements; and (iv) performs a model validation for its credit risk models not less than annually or more frequently as may be contemplated by OCC's risk

management framework in accordance with Rules 17Ad-22(e)(4)(vi) and (vii).<sup>80</sup>

### **Proposed Changes to Minimum Contribution Amount and Allocation Methodology**

Rule 17Ad-22(e)(4)<sup>81</sup> generally requires that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. With respect to the use of Clearing Funds and the requirements of Rule 17Ad-22(e)(4),<sup>82</sup> the Commission has noted that, to the extent that a clearing agency uses guaranty or clearing fund contributions to mutualize risk across participants, the clearing agency generally should value margin and guaranty fund contributions so that the contributions are commensurate to the risks posed by the participants' activity, and the clearing agency also generally should consider the appropriate balance of individualized and pooled elements within its default waterfall, with a careful consideration of whether the balance of those elements mitigates risk and to what extent an imbalance among those elements might encourage moral hazard, in that one participant may take more risks because the other participants bear the costs of those risks.<sup>83</sup>

OCC believes that the proposed changes to its initial and minimum Clearing Fund contribution amounts strike an appropriate balance between individualized and mutualized

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<sup>80</sup> Id.

<sup>81</sup> 17 CFR 240.17Ad-22(e)(4).

<sup>82</sup> Id.

<sup>83</sup> See Securities Exchange Act Release No. 78961 (September 28, 2016), 81 FR 70786 (October 13, 2016) (S7-03-14) (“Standards for Covered Clearing Agencies”) at 70813.

resources for new Clearing Members and those Clearing Members with minimal open interest.

As noted above, OCC's existing initial and minimum fixed contribution requirements have been in place since June 5, 2000, while its Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the proposal described herein.<sup>84</sup> As a result, OCC undertook an analysis to determine the appropriateness of this amount. As discussed in detail above, OCC considered a number of factors such as the potential impact on Clearing Members that are at the minimum or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. OCC believes that the proposed increase is appropriate given the increase in OCC's overall Clearing Fund size and is in line with or lower than the minimum requirements of other CCPs.<sup>85</sup> OCC therefore believes the proposed change is reasonably designed to ensure OCC is able to manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes in a manner that considers an appropriate balance of individualized and pooled elements within its default waterfall.

Additionally, OCC proposes to modify its allocation weighting methodology to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk

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<sup>84</sup> See supra note 36 and accompanying text.

<sup>85</sup> See supra note 37.

they bring to OCC. Specifically, the proposed Clearing Fund contribution requirements would be based on an allocation methodology of 70% of total risk, 15% of volume and 15% of open interest (as opposed to the current weighting of 35% total risk, 50% open interest, and 15% volume). OCC believes that this change would better align incentives for each Clearing Member to reduce the risk it introduces to the Clearing Fund by determining each Clearing Member's proportionate share of the Clearing Fund based on the risk it presents to OCC. OCC also proposes to modify the volume component of its Clearing Fund contribution allocation weighting methodology to provide that OCC would use cleared volume, as opposed to executed volume, to base the volume component of the allocation on where the position is ultimately cleared as opposed to where it was executed. OCC believes that the proposed change is designed to more appropriately allocate contribution requirements commensurate to the risks posed by its Clearing Members.

For these reasons, OCC believes that the proposed changes are designed to manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes in a manner consistent with Rule 17Ad-22(e)(4).<sup>86</sup>

#### **Other Clarifying, Conforming and Organizational Changes**

Rule 17Ad-22(e)(1)<sup>87</sup> requires a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for a well-founded, clear, transparent, and enforceable legal basis for each aspect of its activities in all

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<sup>86</sup> 17 CFR 240.17Ad-22(e)(4).

<sup>87</sup> 17 CFR 240.17Ad-22(e)(1).

relevant jurisdictions. OCC believes that the proposed clarifying, conforming, and organizational changes to its By-Laws and Rules are designed to provide Clearing Members with enhanced transparency and clarity regarding their obligations associated with the Clearing Fund. As discussed above, the primary provisions that address OCC's Clearing Fund are currently split between Article VIII of the By-Laws and Chapter X of the Rules. Consolidating all of these provisions to Chapter X of the Rules would provide Clearing Members with a single location in which to find and understand the primary obligations that are associated with the Clearing Fund. In addition, OCC would make a number of non-substantive changes to its rules designed to provide additional clarity and transparency, including for example: (1) consolidating existing Interpretation and Policy .01 and .02 of Article VIII, Section 5 concerning the share of any deficiency to be borne by each Clearing Member as a result of a charge against the Clearing Fund into new Interpretation and Policy .01 of Rule 1006 with conforming changes and cross-references to new Interpretation and Policy .01 of Rule 1006 being added to proposed Rules 1006(b) and (c) to provide additional clarity in OCC's rules; (2) making minor modifications to proposed Rule 1006(a) to clarify that matured futures contracts are included within the scope of other contracts or obligations issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable; (3) clarifying in the proposed Policy that the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer would have the authority to approve proportionate charges against the Clearing Fund; (4) clarifying in the proposed Policy that OCC's Accounting department is responsible for maintaining procedures for the allocation of losses due to a Clearing Member default and to replenish the Clearing Fund in the event a

deficiency in the Clearing Fund results from events other than those specified in proposed Rule 1006; (5) revising Rule 609 to change the term “securities” to “contracts” to clarify that OCC’s authority to call for intra-day margin also applies to non-securities products cleared by OCC; (6) codifying in the proposed Policy the existing OCC practice that the specific securities eligible to be used as Clearing Fund contributions be permitted to be pledged in exchange for cash through one of OCC’s committed liquidity facilities so that OCC continues to maintain sufficient eligible securities to fully access such facilities; (7) clarifying in proposed Rule 1002 that the circumstances and terms for a Clearing Member terminating its clearing membership due to an increase in Clearing Fund contribution resulting from an amendment of the Rules is separate from the circumstances and terms for a Clearing Member terminating its status as a result of a proportionate charge against the Clearing Fund; (8) clarifying in the introduction to Chapter X of the Rules that the size of the Clearing Fund shall at all times be subject to minimum sizing requirements and generally be calculated on a monthly basis by OCC; however, the calculated size of the Clearing Fund may be determined more frequently than monthly under certain conditions specified in proposed Rule 1001; and (9) rephrasing current rule text referencing “computed contributions to the Clearing Fund” and “as fixed at the time” to be “required contributions to the Clearing Fund” and “as calculated at the time” to more accurately reflect that these rules are intended to refer to a Clearing Member’s required Clearing Fund Contribution amount as calculated under the proposed Rules, Policy and Methodology Description and eliminate any potential confusion with a Clearing Member’s “fixed amount” as determined under Rule 1003(a). OCC believes that this additional clarity, transparency and enhanced readability

regarding the primary provisions pertaining to the Clearing Fund help to provide for a well-founded, clear, transparent and enforceable legal basis for the rights and obligations of Clearing Members and OCC regarding the Clearing Fund consistent with Rule 17Ad-22(e)(1).<sup>88</sup>

In addition, Section 19(b)(1) of the Exchange Act and Rule 19b-4 thereunder set forth the requirements for SRO proposed rule changes, including the regulatory filing requirements for SPPIs.<sup>89</sup> OCC proposes to retire its existing Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure, which were previously filed as “rules” with the Commission,<sup>90</sup> as these procedures would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodology and processes. Under the proposal, the material aspects of OCC’s Clearing Fund-related operations would be contained in the proposed Rules, Policy and Methodology Description described herein. Any applicable procedural details would not be “rules” of OCC as those aspects of the procedures: (1) would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodologies and processes, (2) would be reasonably and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC’s Clearing Fund-related operations. Accordingly, OCC believes the proposed changes would be consistent with the requirements of Rule 17Ad-22(e)(1).<sup>91</sup>

For the reasons set forth above, OCC believes the proposed rule change is designed to

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<sup>88</sup> Id.

<sup>89</sup> See supra note 52.

<sup>90</sup> See supra note 8.

<sup>91</sup> Id.

assure the safeguarding of securities and funds at OCC and, in general, protect investors and the public interest consistent with Section 17A(b)(3)(F) of the Act<sup>92</sup> and the rules promulgated thereunder.

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

Section 17A(b)(3)(I) of the Act<sup>93</sup> requires that the rules of a clearing agency not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. While certain aspects of the proposal would have an impact on certain Clearing Members, specifically in the form of higher Clearing Fund contribution requirements, OCC does not believe that the proposed rule change would impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The potential impact on Clearing Members, and the appropriateness of those changes to further of the purposes of the Act, is described in detail below.

OCC is proposing a number of changes to its Clearing Fund and stress testing methodology (specifically, the implementation of a Cover 2 Standard for the Clearing Fund; newly proposed risk tolerance; newly proposed stress testing framework for developing and maintaining Sizing, Adequacy, Sufficiency and Informational Stress Tests; changes in timing for funding Clearing Fund deficits; and related governance, monitoring and review activities), which may have an impact on certain of its Clearing Members due to potential changes in the total amount of Pre-Funded Financial Resources OCC would be required to maintain on a monthly

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<sup>92</sup> Id.

<sup>93</sup> 15 U.S.C. 78q-1(b)(3)(I).



basis and the need for OCC call for additional resources from particular Clearing Members on an intra-month basis. For example, the proposed methodology changes could at times result in significant changes to OCC's overall Clearing Fund size relative to the current methodology (resulting in either larger or smaller relative Clearing Fund sizes). In addition, OCC would adopt new Sufficiency Stress Tests to determine whether OCC should call for additional resources from its Clearing Members on an intra-month basis, which may impact a wider subset of OCC's Clearing Members than those typically subject to margin calls under the current methodology and FRMC Procedure.<sup>94</sup> OCC does not believe the proposed changes to its Clearing Fund and stress testing methodology (including the introduction of new Sufficiency Scenarios) would unfairly inhibit access to OCC's services or disadvantage or favor any particular user in relationship to another user. The proposed changes are designed to improve OCC's ability to measure, monitor and manage its credit exposures to its participants consistent with its regulatory requirements under Rules 17Ad-22(b)(3) and (e)(4)<sup>95</sup> and thereby enhance OCC's ability to manage risks in its role as a systemically important financial market utility. As a result, OCC believes that any impact on competition or OCC's Clearing Members would be necessary and appropriate in furtherance of the protection of investors and the public interest under the Act.

OCC also proposes a number of changes to its Clearing Fund contribution allocation requirements, which would have an impact on OCC's Clearing Members. Under the proposed

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<sup>94</sup> OCC notes that, under its current methodology, the Clearing Fund has ranged in size from \$5.7 billion to \$17.9 billion since January 2016, which can result in significant changes in Clearing Fund contribution requirements and the need for, and size of, intra-month margin calls or Clearing Fund resizing under its existing FRMC Procedure.

<sup>95</sup> 17 C.F.R. 240.17Ad-22(b)(3) and (e)(4).

rule change, those Clearing Members currently contributing the minimum initial and fixed amounts (or amounts under or slightly higher than the proposed minimums) would primarily be impacted by the increase in the minimum Clearing Fund contribution requirement.<sup>96</sup> As discussed above, OCC's existing initial and minimum fixed contribution requirements have been in place since June 5, 2000,<sup>97</sup> and as a result, OCC undertook an analysis to determine the appropriateness of its current minimum requirements given the passage of time and the evolution of OCC's overall Clearing Fund size. As part of this analysis, OCC considered, among other things, the potential impact on Clearing Members that are at the minimum or otherwise close to the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. In particular, OCC notes that its existing initial and minimum fixed contribution requirements have remained static since June 2000, while its Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the

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<sup>96</sup> OCC notes that there are currently eleven Clearing Members either subject to the minimum Clearing Fund contribution requirement of \$150,000 or below the proposed \$500,000 requirement. OCC also notes that other Clearing Members with generally smaller contribution requirements, and for which the contribution requirement consists mostly of the minimum fixed amount, would be more significantly impacted by the introduction of a higher minimum amount into the allocation formula. In addition, firms preparing to withdraw from membership by reducing open positions as they wind down their business or new Clearing Members coming online and slowly increasing their business could be impacted by the change in minimum fixed and initial contributions, respectively.

<sup>97</sup> See supra note 36.

proposal described herein. In addition, the proposed minimum contribution requirement of \$500,000 is in line with or lower than the minimum requirements of other CCPs.<sup>98</sup> As a result of this analysis, OCC determined \$500,000 would be an appropriate initial and minimum Clearing Fund contribution amount to maintain membership at OCC. OCC believes that the proposed minimum contribution requirement considers a proper balance of individualized and pooled elements within its default waterfall and would not unduly inhibit access to OCC's services or otherwise impose a burden competition. Moreover, OCC believes the proposed changes to its minimum contribution requirements are reasonably designed to ensure that OCC is able to manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes and therefore any competitive impact would be necessary and appropriate in furtherance of the purposes of protecting investors and the public interest under the Act.

Additionally, OCC proposes to modify its allocation weighting methodology to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they bring to OCC. Specifically, the proposed Clearing Fund contribution requirements would be based on an allocation methodology of 70% of total risk, 15% of volume and 15% of open interest (as opposed to the current weighting of 35% total risk, 50% open interest, and 15% volume). The proposed change would result in potentially higher contribution requirements for Clearing Members with large shares of overall margin relative to open interest, which could be the result of a portfolio that contains directional exposures driving higher margin requirements or accounts that have significant exposures in futures subject to customer gross margining

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<sup>98</sup> See supra note 37.

requirements. OCC believes that this change is prudent from a risk management perspective as it would better align each Clearing Member's contribution requirement with the risk it presents to OCC by requiring those members that bring elevated levels of risk to contribute more to the Clearing Fund and thereby incentivize those firms to reduce the risk of their exposures. As a result, OCC believes that any impact on competition would be necessary and appropriate in furtherance of the purposes of protecting investors and the public interest under the Act.

OCC also proposes to modify the volume component of its Clearing Fund contribution allocation weighting methodology to provide that OCC would use cleared volume, as opposed to executed volume, in allocating Clearing Fund contribution requirements. OCC believes that the proposed change also is designed to more appropriately allocate contribution requirements commensurate to the risks posed by its Clearing Members by basing the volume component of the allocation on where the position is ultimately cleared, and where the risk is ultimately maintained, as opposed to where it was executed. OCC notes that the Clearing Members most directly impacted by the proposed change are execution-only Clearing Members that directly give up trades through transfers to other Clearing Members and do not to clear or carry positions on a routine basis, and would therefore generally see reduced contribution requirements due to the change from executed volume to cleared volume. OCC believes the overall impact to non-execution-only Clearing Members due only to the change to cleared volume would be minimal. As a result, OCC does not believe the proposed change would have an impact or impose a burden on competition.

OCC also proposes a number of non-material changes, such as relocating provisions of OCC's By-Laws concerning the Clearing Fund to its Rules, making other clarifying and conforming changes to its Rules, Policy and procedures, and clarifying certain pro-cyclicality measures in its existing margin methodology, which are not expected to have any impact on competition.

**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**

Not applicable.

**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 Rule 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**

Not applicable.

**Item 11. Exhibits**

Exhibit 1A. Completed Notice of Proposed Rule Change for publication in the Federal Register.

Exhibit 3A. Comprehensive Stress Testing and Clearing Fund Methodology.

Exhibit 3B. Dynamic VIX Calibration Process.

Exhibit 5A. OCC By-Laws.

Exhibit 5B. OCC Rules.

Exhibit 5C. Clearing Fund Methodology Policy.

Exhibit 5D. Stress Testing and Clearing Fund Methodology Description.

Exhibit 5E. Clearing Fund Intra-Month Re-sizing Procedure.

Exhibit 5F. Financial Resources Monitoring and Call Procedure.

Exhibit 5G. Monthly Clearing Fund Sizing Procedure.

Exhibit 5H. Collateral Risk Management Policy.

Exhibit 5I. Default Management Policy.

**Confidential Treatment is Requested for Exhibits 3A and 3B and Exhibits 5C-5I  
Pursuant to SEC Rule 24b-2**

**SIGNATURES**

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

**THE OPTIONS CLEARING CORPORATION**

**By:** \_\_\_\_\_  
**Justin W. Byrne**  
**Vice President, Regulatory Filings**

## EXHIBIT 1A

## SECURITIES AND EXCHANGE COMMISSION

(Release No. 34-[\_\_\_\_\_]; File No. SR-OCC-2018-008)

June \_\_, 2018

Self-Regulatory Organizations; The Options Clearing Corporation; Notice of Filing of Proposed Rule Change Related to The Options Clearing Corporation's Stress Testing and Clearing Fund Methodology

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Exchange Act" or "Act"),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on May 30, 2018, 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

The proposed rule change by OCC concerns proposed changes to OCC's By-Laws and Rules, the formalization of a substantially new Clearing Fund Methodology Policy ("Policy"), and the adoption of a document describing OCC's new Clearing Fund and stress testing methodology ("Methodology Description"). The proposed changes are primarily designed to enhance OCC's overall resiliency, particularly with respect to the level of OCC's pre-funded financial resources. Specifically, the proposed changes would:

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

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



(1) reorganize, restate, and consolidate the provisions of OCC's By-Laws and Rules relating to the Clearing Fund into a newly revised Chapter X of OCC's Rules;

(2) modify the coverage level of OCC's Clearing Fund sizing requirement to protect OCC against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions (i.e., adopt a "Cover 2 Standard" for sizing the Clearing Fund);

(3) adopt a new risk tolerance for OCC to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period;

(4) adopt a new Clearing Fund and stress testing methodology, which would be underpinned by a new scenario-based one-factor risk model stress testing approach, as detailed in the newly proposed Policy and Methodology Description;

(5) document governance, monitoring, and review processes related to Clearing Fund and stress testing;

(6) provide for certain anti-procyclical limitations on the reduction in Clearing Fund size from month to month;

(7) increase the minimum Clearing Fund contribution requirement for Clearing Members to \$500,000;

(8) modify OCC's allocation weighting methodology for Clearing Fund contributions;

(9) reduce from five to two business days the timeframe within which Clearing Members are required to fund Clearing Fund deficits due to monthly or intra-month resizing or due to Rule amendments;

(10) provide additional clarity in OCC's Rules regarding certain anti-procyclicality measures in OCC's margin model; and

(11) make a number of other non-substantive clarifying, conforming, and organizational changes to OCC's By-Laws, Rules, Collateral Risk Management Policy, Default Management Policy, and filed procedures, including retiring OCC's existing Clearing Fund Intra-Month Re-sizing Procedure, Financial Resources Monitoring and Call Procedure ("FRMC Procedure"), and Monthly Clearing Fund Sizing Procedure, as these procedures would no longer be relevant to OCC's proposed Clearing Fund and stress testing methodology and would be replaced by the proposed Rules, Policy, and Methodology Description described herein.

The proposed amendments to OCC's By-Laws and Rules can be found in Exhibits 5A and 5B, respectively. Material proposed to be added to OCC's By-Laws and Rules as currently in effect is marked by underlining, and material proposed to be deleted is marked in strikethrough text.<sup>3</sup> As proposed, existing Chapter X would be deleted and replaced with new Chapter X in its entirety, as set forth in Exhibit 5B.

The proposed Policy and Methodology Description have been submitted in Exhibits 5C and 5D, respectively, and have been submitted without marking to facilitate

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<sup>3</sup> OCC recently proposed changes to Article VIII of its By-Laws in connection with advance notice and proposed rule change filings related to enhanced and new tools for recovery scenarios. See Securities Exchange Act Release No. 82351 (December 19, 2017), 82 FR 61107 (December 26, 2017) (SR-OCC-2017-020) and Securities Exchange Act Release No. 82513 (January 17, 2018), 83 FR 3244 (January 23, 2018) (SR-OCC-2017-809). The proposed changes currently pending Commission review in SR-OCC-2017-020 and SR-OCC-2017-809 are indicated in Exhibit 5B with double underlined and double strikethrough text.

review and readability of the documents as they are being submitted in their entirety as new rule text.<sup>4</sup>

The Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure can be found in Exhibits 5E, 5F and 5G, respectively, with the deletion (or retirement) of these procedures indicated by strikethrough text.

The proposed changes to OCC's Collateral Risk Management Policy and Default Management Policy can be found in Exhibits 5H and 5I, respectively. Material proposed to be added to the policies as currently in effect is marked by underlining, and material proposed to be deleted is marked in strikethrough text.

All terms with initial capitalization not defined herein have the same meaning as set forth in OCC's By-Laws and Rules.<sup>5</sup>

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

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<sup>4</sup> Id. Proposed changes currently pending Commission review in SR-OCC-2017-020 and SR-OCC-2017-809 are indicated in Exhibit 5C with double underlined and double strikethrough text.

<sup>5</sup> OCC's By-Laws and Rules can be found on OCC's public website: <http://optionsclearing.com/about/publications/bylaws.jsp>.

(1) Purpose**Overview of OCC's Existing Clearing Fund Methodology**

OCC currently sizes its Clearing Fund at an amount sufficient to protect OCC against losses under simulated default scenarios that include (1) an idiosyncratic default scenario that includes the default of the single Clearing Member Group whose default would be likely to result in the largest draw against the Clearing Fund at a 99% confidence level and (2) a minor systemic event default scenario involving the near-simultaneous default of two randomly-selected Clearing Member Groups calculated at a 99.9% confidence level (“Cover 1 Standard”).<sup>6</sup> OCC then uses the daily peak of such draw estimates to determine the monthly size of the Clearing Fund, which is established at the greater of (i) a “base amount” equal to the peak five-day rolling average of the Clearing Fund Draws<sup>7</sup> observed over the preceding three calendar months, plus a prudential margin of safety equal to \$1.8 billion, or (ii) 110% of OCC’s committed credit facilities. Upon each monthly determination of the Clearing Fund’s size, each Clearing Member is required to contribute an amount equal to the sum of: (i) the \$150,000 minimum membership requirement, and (ii) an amount equal to the weighted average of the Clearing Member’s proportionate share of open interest, volume, and total risk charges.<sup>8</sup> Any deficits resulting from a difference between a Clearing Member’s

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<sup>6</sup> See Rule 1001(a).

<sup>7</sup> The term “Clearing Fund Draw” refers to an estimated stress loss exposure in excess of margin requirements.

<sup>8</sup> See Rule 1001(b).

required Clearing Fund contribution and the amount that such member currently has on deposit are due within five business days of the resizing.<sup>9</sup>

Supplemental to the monthly Clearing Fund sizing process, OCC's Financial Risk Management department ("FRM") assesses on a daily basis the sufficiency of the Clearing Fund by monitoring Clearing Fund Draw estimates in order to identify exposures that may require collection of additional margin from a Clearing Member Group or an intra-month resizing of the Clearing Fund in accordance with OCC's FRMC Procedure.<sup>10</sup> In instances where an estimate of a particular Clearing Member Group's Clearing Fund Draw (referred to herein as an "idiosyncratic" estimate) exceeds 75% of the amount currently in the Clearing Fund (i.e., the current Clearing Fund requirement less any deficits), OCC issues a margin call against the Clearing Member Group(s) generating such draw(s) for an amount equal to the difference between such estimated draw amount and the base amount of the Clearing Fund.<sup>11</sup> The margin call per-Clearing Member may be limited to an amount equal to the lesser of \$500 million or 100% of such Clearing Member's net capital, subject to OCC management discretion. All margin calls issued must be satisfied by each applicable Clearing Member within one hour of having

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<sup>9</sup> See Rule 1003.

<sup>10</sup> See Securities Exchange Act Release No. 74980 (May 15, 2015), 80 FR 29364 (May 21, 2015) (SR-OCC-2015-009). See also Securities Exchange Act Release No. 74981 (May 15, 2015), 80 FR 29367 (May 21, 2015) (SR-OCC-2014-811).

<sup>11</sup> In the case where an estimated draw is associated with multiple Clearing Members within a single Clearing Member Group, the margin call is allocated among the individual Clearing Members in the Clearing Member Group based on each Clearing Member's proportionate share of the "total risk" for such Clearing Member Group, as that term is defined in current Rule 1001(b). See Rule 1001(b). Accordingly, the term "total risk" in this context means the margin requirement with respect to all accounts of the Clearing Member Group exclusive of the net asset value of the positions in such accounts aggregated across all such accounts.

been notified and remain in place until deficits associated with the next monthly Clearing Fund sizing are collected.<sup>12</sup>

In more extreme circumstances, where OCC observes an idiosyncratic Clearing Fund Draw estimate (after factoring in margin calls issued) exceeding 90% of the Clearing Fund, OCC increases the size of the Clearing Fund by a minimum amount equal to the greater of (i) \$1 billion, or (ii) 125% of the difference between the projected draw (reduced by margin calls issued) and the Clearing Fund in effect. Each Clearing Member not subject to OCC's minimum \$150,000 Clearing Fund requirement (e.g., a Futures-Only Affiliated Clearing Member) receives a proportionate share of the Clearing Fund increase equal to its proportionate share of the variable portion of the Clearing Fund for the current month (i.e., the Clearing Member's proportionate share of the Clearing Fund amount as determined pursuant to current Rule 1001(b)(y)). Any deficits associated with the increase to the Clearing Fund must be satisfied within five business days of the resizing.

OCC has identified a number of limitations to its current methodology, which is unable to incorporate historical stress test scenarios and which can result in disproportionate changes to the Clearing Fund size in response to even transitory changes in volatility. As a result, OCC is proposing to replace its current Clearing Fund sizing methodology with a new methodology that would allow OCC to size and assess the sufficiency of its Clearing Fund with a wider range of historical and hypothetical scenarios.

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<sup>12</sup> See supra note 10.

## Proposed Changes to OCC's Clearing Fund and Stress Testing Rules and Methodology

OCC is proposing a number of enhancements intended to strengthen its overall resiliency, particularly with respect to OCC's Pre-Funded Financial Resources,<sup>13</sup> including, but not limited to, the following:

- (1) reorganize, restate, and consolidate the provisions of OCC's By-Laws and Rules relating to the Clearing Fund into a newly revised Chapter X of OCC's Rules;
- (2) modify the coverage level of OCC's Clearing Fund sizing requirement to ensure that the size of the Clearing Fund is sufficient to protect OCC against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions (i.e., adopt a "Cover 2 Standard" for sizing the Clearing Fund);
- (3) adopt a new risk tolerance for OCC to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period;
- (4) adopt a new Clearing Fund and stress testing methodology, which would be underpinned by a new scenario-based one-factor risk model stress testing approach, as detailed in the newly proposed Policy and Methodology Description;<sup>14</sup>

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<sup>13</sup> The proposed Policy would define OCC's "Pre-Funded Financial Resources" to mean margin of the defaulted Clearing Member and the required Clearing Fund less any deficits, exclusive of OCC's assessment powers.

<sup>14</sup> OCC has separately submitted to the Commission its Comprehensive Stress Testing and Clearing Fund Methodology document and Dynamic VIX Calibration Process paper, which are included in this filing as Exhibits 3A and 3B, and for which OCC has requested confidential treatment. These Exhibits are being provided as supplemental information to the filing and would not constitute part of OCC's rules, which have been provided in Exhibit 5.

(5) document governance, monitoring, and review processes related to Clearing Fund and stress testing;

(6) provide for certain anti-procyclical<sup>15</sup> limitations on the reduction in Clearing Fund size from month to month;

(7) increase the minimum Clearing Fund contribution requirement for Clearing Members to \$500,000;

(8) modify OCC's allocation weighting methodology for Clearing Fund contributions;

(9) reduce from five to two business days the timeframe within which Clearing Members are required to fund Clearing Fund deficits due to monthly or intra-month resizing or due to Rule amendments;

(10) provide additional clarity in OCC's Rules regarding certain anti-procyclicality measures in OCC's margin model; and

(11) make a number of other non-substantive clarifying, conforming, and organizational changes to OCC's By-Laws, Rules, and filed procedures.

***1. Reorganization and Consolidation of Clearing Fund By-Laws and Rules***

The primary provisions that address OCC's Clearing Fund are currently located in Article VIII of the By-Laws and Chapter X of the Rules. Because the proposed changes to the Clearing Fund would substantially amend the relevant By-Law and Rule

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<sup>15</sup> A quality that is positively correlated with the overall state of the market is deemed to be "procyclical." For example, procyclicality may be evidenced by increasing margin or Clearing Fund requirements in times of stressed market conditions and low margin or Clearing Fund requirements when markets are calm. Hence, anti-procyclical features in a model are measures intended to prevent risk-base models from fluctuating too drastically in response to changing market conditions.



provisions, OCC believes that this is an appropriate opportunity to consolidate the primary provisions that address the Clearing Fund into Chapter X of the Rules. As a result, the content of Article VIII of the By-Laws would be consolidated into Chapter X of the Rules, subject to the proposed amendments described herein.<sup>16</sup> In place of this, Article VIII of the By-Laws would contain a general statement that OCC shall maintain a Clearing Fund, as provided in and subject to the terms of Chapter X of the Rules, and the size of the Clearing Fund shall at all times be subject to minimum sizing requirements and generally be calculated on a monthly basis by OCC; however, the size of the Clearing Fund may be adjusted more frequently than monthly under certain conditions specified in proposed Rule 1001. OCC believes that consolidating all of the Clearing Fund-related provisions of its By-Laws and Rules into one place would provide more clarity around, and enhance the readability of, OCC's Clearing Fund requirements.

OCC notes that, while the content of Article VIII is being moved out of the By-Laws and into the Rules, subject to the proposed changes described herein, OCC is not proposing to change the existing governance requirements with respect to amending the provisions currently contained in Article VIII. Article XI, Section 2 of the By-Laws provides that the Board of Directors may amend the Rules by a majority vote, while Article XI, Section 1 of the By-Laws provides that amendments to the By-Laws require an affirmative vote of two-thirds of the directors then in office, but not less than a majority of the number of directors fixed by the By-Laws. To ensure that the latter, heightened governance standard continues to apply to the Clearing Fund provisions that

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<sup>16</sup> While Article VIII of the By-Laws would effectively be reserved for future use, a statement would be added to indicate that OCC maintains the Clearing Fund as provided in and subject to the Rules provided in Chapter X.

will be moved from Article VIII of the By-Laws to Chapter X of the Rules, OCC is proposing to amend Article XI, Section 2 of the By-Laws to apply the heightened approval requirements to the provisions of Chapter X of the Rules that would be carried over from the By-Laws. Specifically, OCC would amend Article XI of the By-Laws to stipulate that while the Rules may be amended at any time by the Board of Directors, any amendment of the introduction to newly proposed Chapter X of the Rules, Rule 1002, Rule 1006, Rule 1009 and Rule 1010 (the substance of which is primarily derived from Article VIII of the By-Laws) shall require the affirmative vote of two-thirds of the directors then in office (but not less than a majority of the number of directors fixed by the By-Laws). Moreover, Article XI of the By-Laws would be amended to provide that the first sentence of proposed Rule 1006(e) may not be amended by action of the Board of Directors without the approval of the holders of all of the outstanding Common Stock of the OCC entitled to vote thereon. Proposed Rule 1006(e) is derived from existing Article VIII, Section 5(d) of the By-Laws, which is currently subject to this stockholder consent requirement under Article XI, Section 1 of the By-Laws. A detailed discussion of other organizational changes can be found in Section 10 below.

As noted above, and further described below, OCC also proposes to adopt a new Policy and Methodology Description to supplement its proposed Rules and provide further details around OCC's Clearing Fund and stress testing methodology and the related governance framework.

## 2. *Adoption of a Cover 2 Standard for OCC's Clearing Fund*

Under existing Rule 1001(a) and consistent with applicable Exchange Act requirements,<sup>17</sup> OCC currently maintains a Cover 1 Standard with respect to the size of its Clearing Fund. The current methodology uses a sizing approach whereby OCC estimates draws against the Clearing Fund under a simulated idiosyncratic default scenario (representing simulated losses of a single Clearing Member Group) and a minor systemic default scenario (representing all pairings of two Clearing Member Groups, with each pair of distinct Clearing Member Groups being deemed equally likely).

OCC is proposing to amend its Rules and adopt a new Policy and Methodology Description to implement a Cover 2 Standard with respect to sizing the Clearing Fund. As a result, new Rule 1001(a), which replaces existing Rule 1001(a), would provide, in part, that the size of the Clearing Fund shall be established on a monthly basis at an amount determined by OCC to be sufficient to protect it against losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for OCC under stress test scenarios that represent extreme but plausible market conditions (subject to certain minimum sizing requirements) (such stress tests being “Sizing Stress Tests”).<sup>18</sup> The proposed Sizing Stress Tests would be supplemented by additional historical or hypothetical stress test scenarios (“Sufficiency Stress Tests”) and, in the event Sufficiency Stress Tests call for a larger Clearing Fund size, the Clearing Fund shall be re-sized based on such Sufficiency Stress Tests (as described in more detail in Section 4.e below).

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<sup>17</sup> See 17 CFR 240.17Ad-22(b)(3) and (e)(4)(iii).

<sup>18</sup> The calculated size of the Clearing Fund may also be determined more frequently than monthly under certain conditions, as specified within proposed Rule 1001(c).

The adoption of a Cover 2 Standard for the Clearing Fund would continue to satisfy OCC's existing obligations under the Securities Exchange Act of 1934 ("Exchange Act" or "Act"),<sup>19</sup> and also would be consistent with international standards and best practices for central counterparties ("CCPs").<sup>20</sup> OCC believes that moving to an industry best practice Cover 2 Standard would increase OCC's resiliency and enable it to better withstand the default of multiple Clearing Members. OCC's proposed approach of adopting a Cover 2 Standard is reiterated in the proposed Policy and Methodology Description, and the stress tests referred to in new Rule 1001(a) are described in more detail in Section 4 below.<sup>21</sup>

### ***3. New Risk Tolerance for OCC's Pre-Funded Financial Resources***

OCC proposes to adopt a new risk tolerance with respect to credit risk that its Clearing Fund, along with OCC's other Pre-Funded Financial Resources,<sup>22</sup> should be sufficient to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two Clearing Member Groups that would potentially cause

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<sup>19</sup> 15 U.S.C. 78a et seq. *See supra* note 17.

<sup>20</sup> *See* Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, Principles for financial market infrastructures (Apr. 16, 2012), available at <http://www.bis.org/publ/cpss101a.pdf>.

<sup>21</sup> Under the proposed Clearing Fund methodology, OCC would no longer maintain the prudential margin of safety, as currently provided for in existing Rule 1001(a). As described further herein, OCC's proposed risk tolerance would be set at a 1-in-50 year market event; however, OCC would size its Clearing Fund to cover a more conservative 1-in-80 year event, creating a buffer beyond its risk tolerance. As a result, OCC believes the prudential margin of safety would no longer be necessary.

<sup>22</sup> Under the proposed Policy, "Pre-Funded Financial Resources" would be defined as the margin of the defaulted Clearing Member and the required Clearing Fund less any deficits. OCC would not include assessment powers as a Pre-Funded Financial Resource.

the largest aggregate credit exposure in extreme but plausible market conditions. In developing a risk tolerance with regard to the sizing of the Clearing Fund, OCC believes that a 1-in-50 year hypothetical market event<sup>23</sup> represents the outer range of extreme but plausible scenarios for OCC's cleared products. Accordingly, OCC proposes to adopt a new risk tolerance with respect to sizing its Pre-Funded Financial Resources that would cover a 1-in-50 year hypothetical market event on a Cover 2 Standard at a 99.5% confidence level over a two-year look-back period. The hypothetical scenarios used to establish the proposed risk tolerance would be based on the statistical fit of the historical returns for the "risk drivers" of equity products (or "risk factors") for a 1-in-50 year decline and rally in the Standard & Poor's S&P 500 Index ("SPX").<sup>24</sup> OCC would then set the size of its Clearing Fund on a monthly basis at an amount sufficient to cover this risk tolerance, as described in more detail in Section 4.d below.

#### ***4. Adoption of New Clearing Fund and Stress Testing Methodology***

OCC proposes to adopt a new methodology for sizing and monitoring its Clearing Fund and overall Pre-Funded Financial Resources, which primarily would be detailed in the proposed Policy and the Methodology Description. OCC believes that its proposed

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<sup>23</sup> OCC notes that a 1-in-50 year hypothetical market event corresponds to a 99.9921% confidence interval under OCC's chosen distribution of 2-day logarithmic S&P 500 index returns. The construction of Hypothetical stress test scenarios, including the 1-in-50 year market event used for OCC's risk tolerance, is discussed in Section 4 below.

<sup>24</sup> "Risk factors" refer broadly to all of the individual underlying securities (such as Google, IBM and Standard & Poor's Depository Receipts ("SPDR"), S&P 500 Exchange Traded Funds ("SPY"), etc.) listed on a market. The "risk drivers" are a selected set of securities or market indices (e.g., the SPX or the Cboe Volatility Index ("VIX")) that are used to represent the main sources or drivers for the price changes of the risk factors. The use and application of risk factors and risk drivers in OCC's proposed methodology are discussed further in Section 4 below.

methodology would enable it to measure its credit exposure and to size its Pre-Funded Financial Resources at a level sufficient to cover potential losses under extreme but plausible market conditions.

Under the requirements of the proposed Policy, OCC would base its determination of the Clearing Fund size on the results of stress tests conducted daily using standard predetermined parameters and assumptions. These daily stress tests would consider a range of relevant stress scenarios and possible price changes in liquidation periods, including but not limited to: (1) relevant peak historic price volatilities; (2) shifts in other market factors including, as appropriate, price determinants and yield curves; and (3) the default of one or multiple Clearing Members. OCC also would conduct reverse stress tests for informational purposes aimed at identifying extreme default scenarios and extreme market conditions for which the OCC's financial resources would be insufficient.

As further described in the proposed Methodology Description, the stress scenarios used in the proposed methodology would consist of two types of scenarios: "Historical Scenarios" and "Hypothetical Scenarios." Historical Scenarios would replicate historical events in current market conditions, which include the set of currently existing securities, their prices and volatility levels. These scenarios provide OCC with information regarding pre-defined reference points determined to be relevant benchmarks for assessing OCC's exposure to Clearing Members and the adequacy of its financial resources. Hypothetical Scenarios would represent events in which market conditions change in ways that have not yet been observed. The Hypothetical Scenarios would be derived using statistical methods (e.g., draws from estimated multivariate distributions)

or created based on expert judgment (e.g., a 15% decline in market prices and 50% in volatility). These scenarios would give OCC the ability to change the distribution and level of stress in ways necessary to produce an effective forward-looking stress testing methodology. OCC would use these pre-determined stress scenarios in stress tests, conducted on a daily basis, to determine OCC's risk exposure to each Clearing Member Group by simulating the profits and losses of the positions in their respective account portfolios under each such stress scenario.

The proposed Methodology Description would also describe OCC's proposed approach for constructing stress test portfolios. For purposes of the proposed methodology, OCC would construct portfolios based on "liquidation positions," which are designed to more closely reflect how positions would be internalized (or netted) as part of OCC's default management process. The liquidation position set is created through an internalization process where long and short positions in the same contract series are closed out within an account type at the Clearing Member level. This replicates the process OCC would perform in the case of a Clearing Member default when offsetting positions are internalized before liquidating the remainder of the defaulter's portfolio. For simplicity purposes, OCC developed its current set of liquidation positions by internalizing within an account type at the Clearing Member level but does not incorporate potential internalization that can occur across account types. As a result, liquidation positions only reflect a portion of the potential exposure-reducing benefits associated with internalization and may lead to more conservative estimates of exposure.

As described further below, the proposed Policy and Methodology Description would include stress tests designed to: (1) determine the size of the Clearing Fund (i.e.,

Sizing Stress Tests run using OCC's inventory of "Sizing Scenarios"), (2) assess OCC's Clearing Fund size with respect to its risk tolerance and any other scenarios determined by the Risk Committee (i.e., Adequacy Stress Tests run using OCC's inventory of "Adequacy Scenarios"), (3) measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional margin resources from that individual Clearing Member Group (or Groups) or from Clearing Members generally through an intra-month resizing of the Clearing Fund (i.e., Sufficiency Stress Tests run using OCC's inventory of "Sufficiency Scenarios"), and (4) monitor and assess OCC's total financial resources under a variety of market conditions (i.e., Informational Stress Tests run using OCC's inventory of "Informational Scenarios").

OCC's proposed stress testing model, the construction of Hypothetical and Historical Scenarios, and the variety of stress tests thereunder are described in more detail below.

***a. Proposed Stress Testing Model***

***(i). Risk Drivers and Stress Scenarios***

As detailed in the proposed Methodology Description, the proposed stress testing methodology is a scenario-based risk factor model with the following principal elements. First, a set of risk drivers are selected based on the portfolio exposures of all Clearing Member Groups in the aggregate. Second, each individual underlying security contained in the portfolio of a Clearing Member Group (each a "risk factor") is mapped to a risk driver, and the sensitivity or "beta" of the security with respect to the corresponding risk driver is estimated (i.e., the sensitivity of the price of the security relative to the price of



the risk driver). Third, a set of stress scenarios is generated by assigning a stress shock to each of the risk drivers, with the shocks of an individual underlying security or risk factor determined by the shock of its risk driver and its sensitivity (or beta) to the risk driver. Fourth, for each of the stress scenarios, the risk exposure or shortfall of each portfolio of a Clearing Member is calculated and aggregated at the Clearing Member Group level.

Under the proposed stress testing methodology, each individual underlying security in the Clearing Members' portfolios is represented by a risk factor (such as Google, IBM, Standard & Poor's Depository Receipts ("SPDR"), S&P 500 Exchange Traded Funds ("SPY"), etc.). The number of risk factors is typically in the thousands. Because the vast amount of OCC's products are equity based, the risk drivers comprise a small set of underlying securities or market indices (e.g., Cboe S&P 500 Index ("SPX"), or the VIX) that are used to represent the main sources or drivers for the price changes of the risk factors. Other relevant risk drivers are included to cover U.S. and Canadian Government Security collateral positions, as well as commodity based exchange-traded funds ("ETFs") and futures products. The risk drivers are selected based on the characteristics of the risk factors in the Clearing Members' portfolios.

After the risk drivers are selected, each risk factor would be mapped to one risk driver. This mapping allows OCC to simulate movements for a large number of risk factors by the movements of a smaller number of risk drivers. In general, the mapping depends on the type of risk factor. For example, equity price risk factors generally are mapped to SPX and volatility risk factors to VIX. Government bond risk factors generally would be mapped to either U.S. Dollar ("USD") Treasury yields or Canadian Dollar ("CAD") government bond yields depending on the currency. The Treasury ETFs

generally would be mapped to one of the Treasury bond ETFs. The commodity products generally would be mapped to one of the representative ETFs of the corresponding commodity class. All other risk factors initially would be mapped by default to SPX.

Under the proposed Methodology Description, risk drivers and the corresponding shocks would be reviewed regularly by OCC's Stress Testing Working Group ("STWG"), a cross-departmental team including senior officers from FRM, Quantitative Risk Management ("QRM"), Model Validation Group ("MVG"), and Enterprise Risk Management. The addition of a new risk driver or change in an existing risk driver would most likely be driven by a change in OCC's product exposure or by other changes in the market. Changes to risk drivers would be reviewed and approved by the STWG. QRM would recalibrate scenario shocks at least annually. In addition, on a quarterly basis (or more frequently if QRM or STWG determines that updates are necessary to capture significant market events in a timely fashion), QRM would recalibrate the risk driver shocks and report those results to the STWG who would review and approve any updates to the risk driver shocks.

To simulate a stressed market scenario, OCC would construct two kinds of scenarios, namely Hypothetical Scenarios (including statistically derived scenarios) and Historical Scenarios. Hypothetical Scenarios constructed using statistical methods would be based on various quantiles of the fitted distribution of the log returns of the main risk driver (e.g., SPX). Historical Scenarios on the other hand would be created using historic price moves for the risk factors on a given date where the scenario is defined. Additional details on the proposed stress testing model by asset class are discussed below.

*(i). Equity Risk Drivers and Shocks*

Under the proposed methodology, price shocks used for equity instruments in the statistically-derived Hypothetical Scenarios would be based on the quantiles of fitted statistical distributions of the 2-day returns of the risk driver (e.g., a 1-in-80 year event SPX down shock). For example, as noted above, OCC uses the SPX as a risk driver for equity price moves. OCC would construct the majority of its Hypothetical Scenarios by fitting an appropriate statistical distribution to SPX returns. OCC would construct a historical dataset of SPX 2-day log returns dating back to 1957,<sup>25</sup> to characterize its fat-tailed<sup>26</sup> and asymmetric distribution. In order to reduce pro-cyclicality in Clearing Fund sizing and also to represent betas in a stressed market, OCC would shock risk factors using (1) a historical beta and (2) a beta equal to 1. The portfolio level profit and loss would be calculated with both betas separately for each Hypothetical Scenario, and OCC would use the calculation yielding the worst of the two outcomes in the subsequent Clearing Fund sizing.

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<sup>25</sup> OCC would extend this dataset from March 1957 to the present if OCC determines that price shocks need to be re-calibrated. As a general matter, OCC has established this look-back period primarily on the basis of the quality of available data. The SPX, in its current form, dates back to 1957, and OCC therefore uses all of the index's data since that date. Furthermore, based on OCC's analysis of various observation windows dating back to the Great Depression, OCC has observed that the price shocks vary with the different periods used in the calibration. OCC's decision to use the entire history of the SPX is based on its desire to minimize the effects associated with a pre-defined observation window, and to avoid the subjective determination of higher or lower periods of volatility or the sudden exclusion of dates that fall outside of a fixed look back period. As noted above, QRM would recalibrate the risk driver shocks on a quarterly basis and report those results to the STWG who would review and approve any updates to the risk driver shocks.

<sup>26</sup> A data set with a "fat tail" is one in which extreme price returns have a higher probability of occurrence than would be the case in a normal distribution.

The proposed Methodology Description would describe in detail OCC's proposed methodology for calculating price shocks for equity instruments, including leveraged products and any underlying baskets.

***(ii). Volatility Shock Model***

As noted above, under the proposed methodology, OCC would use the VIX as the key risk driver for volatility shocks in its proposed stress testing model. The VIX is a measure of the one-month implied volatility<sup>27</sup> of the SPX, which represents the market's expectation of stock market volatility over the next 30-day period. For risk factors with SPX as their risk driver, implied volatility shocks would be modeled from SPX implied volatility shocks and the price beta of the risk factor.<sup>28</sup> For non-SPX driven risk factors, the implied volatility shock would be based on historical volatility beta regressed directly against the VIX. Accordingly, the proposed Methodology Description would describe in detail OCC's proposed methodology for calibrating VIX shocks, including those risk factors with SPX as the key risk driver, those risk factors with a non-SPX risk driver, and implied volatilities of any underlying baskets.

***(iii). Price Shock Models for Other Instruments***

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<sup>27</sup> Generally speaking, the implied volatility of an option is a measure of the expected future volatility of the value of the option's annualized standard deviation of the price of the underlying security, index, or future at exercise, which is reflected in the current option premium in the market. Using the Black-Scholes options pricing model, the implied volatility is the standard deviation of the underlying asset price necessary to arrive at the market price of an option of a given strike, time to maturity, underlying asset price and given the current risk-free rate. In effect, the implied volatility is responsible for that portion of the premium that cannot be explained by the then-current intrinsic value (i.e., the difference between the price of the underlying and the exercise price of the option) of the option, discounted to reflect its time value.

<sup>28</sup> For defined Historical Scenarios, the implied volatility shock leverages a beta based on the ratio of the risk factor price shock to the SPX price shock.

OCC's proposed Methodology Description also would describe OCC's proposed approach to modeling price shocks for fixed income instruments and futures products. Specifically, the Methodology Description would discuss OCC's proposed approach for modeling foreign exchange currency shocks and yield curve shocks, which are used to shock U.S. Treasury bonds and Canadian government bonds held as collateral. The Methodology Description would also cover price and volatility shocks for commodity/energy products. The price shock model for commodity/energy products is the same as that for equity class drivers and the volatility shock model used for options on commodities is the same as that for non-SPX driven risk factors.

***b. Stress Testing Scenario Construction***

OCC proposes to construct Hypothetical and Historical scenarios using two different methodologies: a statistical methodology and a historical/defined shock methodology. Each of these approaches is discussed in further detail below.

***(i). Hypothetical Scenarios***

Under the proposed methodology, price shocks determined in the statistically-derived Hypothetical Scenarios would be based on the quantiles of fitted statistical distributions of the 2-day log returns of the risk driver. For example, Adequacy Scenarios would be based on the generated statistical down and up shocks for the SPX from a 1-in-50 year market event. On the other hand, Sizing Scenarios would be based on the generated statistical down and up shocks for the SPX from a 1-in-80 year market event. Specifically, OCC would use four Hypothetical Scenarios to guide the sizing of the Clearing Fund: (1) a 1-in-80 year market rally using a historical beta; (2) a 1-in-80

year market rally using a beta equal to 1; (3) a 1-in-80 year market decline using a historical beta; and (4) a 1-in-80 year market decline using a beta equal to 1.

Not all Statistical Scenarios would be generated using fitted distributions, however. For example, the Statistical Scenarios for interest rates are based on the “Principal Component Analysis” methods (a commonly used statistical method to analyze the movements of yield curves of Treasury bonds), while the Statistical Scenarios for commodity ETFs would be based on the empirical price changes.

The proposed Methodology Description would describe how OCC would calibrate price and volatility shocks for equities, fixed income products, and commodity/energy products in its Hypothetical Scenarios.

***(ii). Historical Scenarios***

OCC would construct Historical Scenarios using historically accurate price moves for risk factors on a given date, provided the underlying securities were available on the date for which the scenario is defined. Historical Scenarios, which are based on significant market events, would allow OCC to analyze how current portfolios would perform if a historical event were to occur again. Because not all of the securities or risk factors in current portfolios existed on past scenario dates, OCC has developed methodologies to approximate the past price and volatility movements of such risk factors. Under the proposed methodology, a technique known as “Survival Method Pricing” would be used to backfill missing historical shocks. In the backfill technique, the observable 2-day returns of all risk factors would be averaged by industry sectors, and these sector averages would then be used to backfill the missing price returns of the

securities (for example, Facebook stock would use the technology sector average under a 2008 Historical Scenario).<sup>29</sup>

*c. Clearing Fund Sizing and Stress Testing*

Under the proposed methodology, OCC would perform daily stress testing using a wide range of scenarios, both Hypothetical and Historical, designed to serve multiple purposes. Specifically, OCC's proposed stress testing inventory would contain scenarios designed to: (1) determine whether the financial resources collected from all Clearing Members collectively are adequate to cover OCC's risk tolerance; (2) establish the monthly size of the Clearing Fund; (3) measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups, and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional resources so that OCC continues to maintain sufficient financial resources to guard against potential losses under a wide range of stress scenarios, including extreme but plausible market conditions; and (4) monitor and assess the size of OCC's Pre-Funded Financial Resources against a wide range of stress scenarios that may include extreme but implausible and reverse stress testing scenarios. Each of these categories of stress tests is discussed in further detail below.

*(i). Adequacy Stress Tests*

Under the proposed Policy and Methodology Description, on a daily basis, OCC would perform a set of Adequacy Stress Tests designed to determine whether the

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<sup>29</sup> With respect to volatility risk driver shocks, the exact volatility scenarios for a historical event may often be overridden by VIX shocks generated using OCC's dynamic VIX calibration process because: (1) the historical volatility data is not available; and 2) even when the data is available, the sizes of the exact historical moves are too low to generate any realistic losses.

financial resources collected from all Clearing Members collectively are adequate to cover OCC's risk tolerance (and other specified scenarios as may be approved by the Risk Committee) (i.e., Adequacy Scenarios). The performance of these Adequacy Stress Tests would allow OCC to assess the size of its Clearing Fund against its risk tolerance; however, Adequacy Stress Tests would not drive calls for additional financial resources. Adequacy Scenarios would include, at a minimum, scenarios reflecting OCC's proposed risk tolerance, which corresponds to a Clearing Fund size that would cover a 1-in-50 year market event on a Cover 2 Standard. Adequacy Stress Tests should demonstrate that OCC maintains sufficient Pre-Funded Financial resources to cover all Adequacy Scenarios at a 99.5% coverage level over a two-year look back period.

*(ii). Sizing Stress Tests*

Under the proposed Policy and Methodology Description, FRM would determine the monthly Clearing Fund size based on the results of Sizing Stress Tests conducted daily using standard predetermined parameters and assumptions. Specifically, OCC would use Sizing Stress Tests to project the Clearing Fund size necessary for OCC to maintain sufficient Pre-Funded Financial Resources to cover losses arising from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure to OCC as a result of a 1-in-80 year hypothetical market event, which OCC believes would provide sufficient coverage of OCC's 1-in-50 year event risk tolerance (and any other Adequacy Scenarios as may be approved by the Risk Committee) and to guard against intra-month scenario volatility and procyclicality.<sup>30</sup>

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<sup>30</sup> In addition, OCC proposes conforming changes to delete Interpretation and Policy .02 of Rule 1001, which concerns the minimum confidence level used to size the



Under existing Rule 1001(a), OCC's Clearing Fund size determination is based on the peak five-day rolling average of its Clearing Fund sizing calculations observed over the preceding three calendar months plus a prudential margin of safety. As described in the proposed Policy and Methodology Description, OCC would continue to determine the Clearing Fund size for a given month by using a peak five-day rolling average of the Sizing Stress Test results over the prior three months but, as noted above, would no longer require a prudential margin of safety.<sup>31</sup> OCC believes that sizing the Clearing Fund at a more conservative 1-in-80 year market event scenario (over the proposed 1-in-50 year risk tolerance) would help to reduce volatility in its Clearing Fund sizing methodology and ensure that OCC continues to maintain sufficient resources in the event of large peaks and volatile markets, thereby providing a similar anti-procyclical buffer to the current prudential margin of safety.

In addition, under the proposed Policy, the minimum size of the Clearing Fund would continue to be set in accordance with OCC's minimum liquidity resources to equal 110% of OCC's committed liquidity facilities plus OCC's Cash Clearing Fund Requirement. However, if a temporary increase to the Cash Clearing Fund Requirement is made pursuant to OCC's Rules, the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer would be authorized to determine whether such an increase should result in an increase in the minimum size of the Clearing Fund (which is tied to, in part, OCC's Cash Clearing Fund Requirement).

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Clearing Fund, as the confidence level used to size the Clearing Fund would now be addressed in the Policy and Methodology Description.

<sup>31</sup> See supra note 21.

OCC also proposes to introduce some anti-procyclical measures for its monthly sizing process, which are discussed in Section 6 below.

*(iii). Sufficiency Stress Tests*

On a daily basis, OCC would run a set of Sufficiency Stress Tests to measure the exposure of the Clearing Fund to the portfolios of individual Clearing Member Groups and determine whether any such exposure is sufficiently large as to necessitate OCC calling for additional resources (1) from that individual Clearing Member Group (or Groups) in the form of margin or (2) from Clearing Members generally through an intra-month resizing of the Clearing Fund. OCC initially expects to implement a set of historically-based Sufficiency Scenarios that would include, among others, the worst two-day price moves, up and down, during the 2008 financial crisis, which constitute the two most extreme two-day price moves observed in the entire history of SPX with the exception of the 1987 market crash, to be covered on a Cover 2 basis. OCC also would include as a Sufficiency Scenario a historical October 1987 market crash event to be covered on a Cover 1 basis.

Under the proposed Sufficiency Stress Tests, the largest Clearing Fund Draw from each Sufficiency Scenario shall be compared against the Clearing Fund size on a daily basis to assess whether OCC maintains sufficient financial resources to cover the stress scenario. If a Sufficiency Stress Test indicates that a Clearing Fund Draw would breach certain established thresholds, OCC would initiate (depending on the threshold breached) the process of (1) conducting additional monitoring, (2) collecting additional margin from the specific Clearing Member Group (or Groups) causing the breach, or (3) in extreme cases, resizing the Clearing Fund. Such thresholds have been designed to

ensure that OCC's Pre-Funded Financial Resources would remain sufficient to cover losses that may be incurred by its largest one or two Clearing Member Groups, depending on the scenario in question. Each proposed threshold is set forth below, and included with each threshold are mitigating actions that OCC would take in the event of a breach of the threshold.

***(1). Enhanced Monitoring***

Under the proposed Policy, in the event that Sufficiency Stress Tests identify a Clearing Fund Draw for one or two Clearing Member Groups that causes the largest aggregate credit exposure to OCC to exceed 65% of the current Clearing Fund requirement less deficits, but that does not breach a Sufficiency Stress Test Threshold (as defined below), FRM would promptly conduct enhanced monitoring and notify the relevant Clearing Member Group (or Groups) that they are approaching a margin call threshold in accordance with internal OCC procedures.<sup>32</sup>

***(2). Sufficiency Stress Test Threshold 1 – Intra-Day Margin Calls***

OCC proposes to amend Rule 609 to provide that, in addition to its existing authority to require intra-day margin deposits, OCC may require additional margin deposits if a Sufficiency Stress Test identifies a breach that exceeds 75% of the current Clearing Fund requirement less deficits (the "75% threshold" or "Sufficiency Stress Test Threshold 1"). The proposed change is designed to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its largest one or two Clearing Member Group exposures under a wide range of stress scenarios, including

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<sup>32</sup> OCC notes that it performs a similar enhanced monitoring process under its current FRMC Procedure when Idiosyncratic Clearing Fund Draws exceed 65% of the Clearing Fund currently in effect.

extreme but plausible scenarios, where one of the proposed Sufficiency Stress Test scenarios identifies a potential breach in OCC's Clearing Fund size. In the event of a breach of the 75% threshold, OCC would initially collateralize this potential stress exposure by collecting margin from the Clearing Member Group(s) driving the breach.

Pursuant to the proposed Policy and Methodology Description, if a Sufficiency Stress Test identifies a Clearing Fund Draw for any one or two Clearing Member Groups that exceeds Sufficiency Stress Test Threshold 1, OCC would be authorized to issue a margin call against the Clearing Member Group(s) and/or Clearing Member(s) causing the breach in accordance with Rule 609. In the case of Cover 1 Sufficiency Scenarios (e.g., the historical Cover 1 1987 scenario), the amount of the margin call for a Clearing Member Group would be equal to the excess of such Clearing Member Group's projected Clearing Fund Draw over the 75% threshold. In the case of Cover 2 Sufficiency Scenarios (e.g., a historical Cover 2 2008 market event scenario) the total amount of the margin call shall be equal to the excess of the Cover 2 Clearing Fund Draw over the 75% threshold.<sup>33</sup> In the event a Clearing Member Group's Clearing Fund Draws exceed the 75% threshold in more than one Sufficiency Scenario, the Clearing Member Group would be subject to the largest margin call resulting from scenarios. Margin calls would

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<sup>33</sup> In the event only one Clearing Member Group's Clearing Fund Draw exceeds 50% of Sufficiency Stress Test Threshold 1, that Clearing Member Group would pay the entire call. In the event both Clearing Member Groups' Clearing Fund Draws exceed 50% of Sufficiency Stress Test Threshold 1, both Clearing Member Groups would pay an amount equal to the excess of their respective Clearing Fund Draw over 50% of the Sufficiency Stress Test threshold.

be allocated to Clearing Members and related accounts within the Clearing Member Group in accordance with OCC procedures.<sup>34</sup>

All margin calls would be required to be approved by a Vice President (or higher) of FRM and would remain in effect until the collection of additional funds associated with the next monthly resizing of the Clearing Fund, after which the margin call would be (1) released or (2) recalculated based on the current Clearing Fund Draw.<sup>35</sup> If the margin call imposed on an individual Clearing Member exceeds \$500 million, OCC's Stress Testing and Liquidity Risk Management group ("STLRM") would provide written notification to the Executive Chairman and Chief Executive Officer, President and Chief Operating Officer, and Chief Administrative Officer (collectively referred to as the "Office of the Chief Executive Officer" or "OCEO").<sup>36</sup> If the margin call imposed on an

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<sup>34</sup> OCC notes that under the current FRMC Procedure, in the event that FRM observes a scenario where the Idiosyncratic Clearing Fund Draw exceeds 75% of the Clearing Fund, an intra-day margin call would be issued against the Clearing Member or Clearing Member Group that caused such a draw, with the amount of the margin call being the difference between the projected draw and the "base amount." See *supra* note 10 and accompanying text.

<sup>35</sup> OCC notes that, under the current FRMC Procedure, for the days prior to the collection of any Clearing Fund payments due that result from the re-sizing of the Clearing Fund on the first business day of the month, both the base Clearing Fund requirement and the Clearing Fund in effect are further reduced by any outstanding deficits. The proposed changes would clarify that upon the collection of funds to satisfy such deficits, any margin calls would be (1) released or (2) recalculated based on the current Clearing Fund Draw.

<sup>36</sup> OCC notes that, under its current FRMC Procedure, margin calls may be subject to a per-Clearing Member cap equal to the lesser of \$500 million or 100% of such Clearing Member's net capital; however, OCC's management retains discretion under the FRMC Procedure to call for additional margin beyond those amounts with certain reporting requirements when these caps are exceeded. Under the proposed Policy, these thresholds would no longer be characterized as "caps" and there would no longer be a requirement for reporting to OCC's Management Committee and Risk Committee as the \$500 million threshold would no longer function as a cap and the 100% of net capital threshold would now require

individual Clearing Member would exceed 100% an individual Clearing Member's net capital, the issue would be escalated to the OCEO, and each of the Executive Chairman, Chief Administrative Officer, and Chief Operating Officer would have the authority to determine whether OCC should continue calling for additional margin in excess of this amount. OCC believes that this notification and escalation process would enable OCC to appropriately require those Clearing Members that bring elevated risk exposures to OCC to bear the costs of those risks in the form of margin charges while also allowing OCC to take into consideration a particular Clearing Member's ability to meet the call based on its financial condition, and the amount of collateral it has available to pledge when certain pre-identified thresholds have been exceeded.

***(3). Sufficiency Stress Test Threshold 2 – Intra-Month Clearing Fund Resizing***

Under proposed Rule 1001(c) (and as described in the proposed Policy and Methodology Description), if a Sufficiency Stress Test were to identify a Clearing Fund Draw for any one or two Clearing Member Groups that exceed 90% of the current Clearing Fund size (after subtracting any monies deposited as a result of a margin call in accordance with a breach of Sufficiency Stress Test Threshold 1), OCC would effect an intra-month resizing of the Clearing Fund to ensure that OCC continues to maintain

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escalation to the OCEO for approval of further margin calls. OCC believes the proposed changes to the reporting and approval process are appropriate given that (1) OCC management (typically an officer of OCEO) currently has discretion to waive any margin call caps, (2) under the proposal, these thresholds would no longer be characterized as caps and therefore there would be an assumption that OCC would call for margin in excess of these thresholds, (3) since the adoption of OCC's current FRMC Procedure, OCC has gained comfort in its Clearing Members' ability to meet and maintain margin calls in excess of these thresholds and (4) OCEO would retain the ability to notify or escalate an issue to the Risk Committee if they determine such actions are necessary.

sufficient Pre-Funded Financial Resources to cover its exposures under a wide range of stress scenarios, including extreme but plausible market conditions. The amount of such an increase would be the greater of: (1) \$1 billion or (2) 125% of the difference between the projected draw under the Sufficiency Stress Test (less any monies deposited pursuant to a margin call resulting from a breach of Sufficiency Stress Test Threshold 1) and the current Clearing Fund size. Each Clearing Member's proportionate share of the increase would be based on its proportionate share of the Clearing Fund as determined pursuant to proposed Rule 1003(a), with the exception of those Clearing Members subject to the minimum contribution amount. OCC's Executive Chairman, Chief Administrative Officer or Chief Operating Officer would be responsible for reviewing and approving any intra-month increase to the size of the Clearing Fund based on a breach of Sufficiency Stress Test Threshold 2 prior to implementation, and any such intra-month increase due to a breach of Sufficiency Stress Test Threshold 2 would remain in effect for any sizing calculations performed during the three month period subsequent to the intra-month increase to ensure that OCC continues to maintain sufficient financial resources to cover its credit exposures during that time.

In addition to intra-month resizing based on Sufficiency Stress Testing, OCC proposes to include additional authority in proposed Rule 1001(d) to provide the Risk Committee, or each of the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon notice to the Risk Committee, with the authority to increase the size of the Clearing Fund at any time for the protection of OCC, Clearing Members or the general public. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in Clearing Fund

size would (1) be based upon then-existing facts and circumstances, (2) be in furtherance of the integrity of OCC and the stability of the financial system, and (3) take into consideration the legitimate interests of Clearing Members and market participants. Under the proposed Policy, any temporary increase in Clearing Fund size would be reviewed by the Risk Committee at its next regularly scheduled meeting, or as soon as otherwise practical, and, if such temporary increase is still in effect at the time of that meeting, the Risk Committee would determine whether (1) the increase in Clearing Fund size is no longer required or (2) the Clearing Fund sizing methodology should be modified to ensure that OCC continues to maintain sufficient Pre-Funded Financial Resources to cover its established risk tolerance.<sup>37</sup>

*(iv). Informational Stress Tests*

Under the proposed Policy and Methodology Description, OCC would run a variety of stress tests for informational purposes (i.e., Informational Stress Tests) to monitor and assess the size of OCC's Pre-Funded Financial Resources against other stress scenarios. The Informational Stress Tests could be comprised of a number of Historical and Hypothetical scenarios, which may include extreme but implausible scenarios and reverse stress test scenarios (i.e., "Informational Scenarios"). Informational Scenarios would not directly drive the size of the Clearing Fund or calls for additional margin; however, they would be an important risk monitoring tool that OCC

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<sup>37</sup> In the event that the Risk Committee would determine to permanently increase or change the methodology used to size the Clearing Fund, OCC would initiate any regulatory approval process required to effect such a change in Clearing Fund size. However, OCC would not decrease the size of its Clearing Fund while the regulatory approvals for such permanent increase are being obtained to ensure that OCC continues to maintain sufficient financial resources during that time.



would use to evaluate the appropriateness of its Adequacy, Sizing, and Sufficiency Scenarios and perform risk escalations and evaluations.

OCC would continually evaluate its inventory of Informational Scenarios and could add additional Informational Scenarios, as needed, to ensure that it understands the limits of its Pre-Funded Financial Resources. Scenarios may later be reclassified as a different scenario type with the approval of OCC's Risk Committee. For instance, a new scenario would typically be introduced as an Informational Scenario, but later may be elevated to a Sizing or Sufficiency Scenario.

#### ***5. Clearing Fund and Stress Testing Governance, Monitoring and Review***

The proposed Policy would establish governance, monitoring and review requirements for OCC's Clearing Fund and stress testing methodology. On a daily basis, STLRM would monitor the results of all of the Adequacy and Sufficiency Stress Tests, including whether the Adequacy Stress Test demonstrates that OCC maintains Pre-Funded Financial Resources above OCC's Adequacy Scenarios, in accordance with internal OCC procedures. Under the proposed Policy, STLRM or the Executive Vice President of FRM ("EVP-FRM") would immediately escalate any material issues identified with respect to the adequacy of OCC's financial resources to the STWG (provided that STWG review is practical under the circumstances) and the Management Committee to determine if it would be appropriate to recommend a change to the Hypothetical Scenarios used to size the Clearing Fund in accordance with applicable OCC procedures.

Under the proposed Policy, on a monthly basis, STLRM would prepare reports that provide details and trend analysis of daily stress tests with respect to the Clearing

Fund, including the results of daily Adequacy Stress Tests, Sizing Stress Tests and Sufficiency Stress Tests and review the adequacy of OCC's financial resources in accordance with internal procedures. On a monthly basis, STWG would perform a comprehensive analysis of these stress testing results, as well as information related to the scenarios, models, parameters, and assumptions impacting the sizing of the Clearing Fund. Pursuant to this review, STWG would consider, and may recommend at its discretion, modifications to OCC's stress test scenario inventory and models for financial resources (including the creation and/or retirement of stress test scenarios, the reclassification of stress test scenarios, and/or modifications to the stress test scenarios' underlying parameters and assumptions), as well as related Policies and Procedures, to ensure their appropriateness for determining OCC's required level of financial resources in light of current and evolving market conditions, and as pursuant to the related Procedures established for this purpose. The reviews would be conducted more frequently than monthly when the products cleared or markets served display high volatility or become less liquid; the size or concentration of positions held by OCC's participants increases significantly; or as otherwise appropriate. The Policy would require that OCC maintain procedures for determining whether, and in what circumstances, such intra-month reviews shall be conducted, and would indicate the persons responsible for making the determination.

Pursuant to the proposed Policy, STLRM would report the results of stress tests and its monthly analysis to OCC's Management Committee and Risk Committee on at least a monthly basis and would maintain procedures for determining whether, and in what circumstances, the results of stress tests must be reported to the Management

Committee or the Risk Committee more frequently than monthly, and would indicate the persons responsible for making the determination. In the performance of monthly review of stress testing results and analysis and considering whether escalation is appropriate, due consideration would be given to the intended purpose of the proposed Policy to: (1) assess the adequacy of, and adjust as necessary, OCC's total amount of financial resources; (2) support compliance with the minimum financial resources requirements under applicable regulations; and (3) evaluate the adequacy of, and recommend adjustments to OCC's margin methodology, margin parameters, models used to generate margin or guaranty fund requirements, and any other relevant aspects of OCC's credit risk management.

Under the proposed Policy, OCC's Model Validation Group would be required to perform a model validation of OCC's Clearing Fund model on an annual basis, and the Risk Committee would be responsible for reviewing the model validation report. The Risk Committee would also be required to review and approve the Policy on an annual basis.

Under the proposed Policy, stress test inventories would be maintained by STLRM, and the STWG would be required to review and approve or recommend changes to stress test inventories recommended by STLRM staff in accordance with STWG procedures. The STWG would meet at least monthly and approve or recommend approval of changes to the inventory in accordance with the stress test procedures. The approval authority for such changes would be as follows:

- Informational Stress Tests – The STWG may approve the creation or retirement of Informational Stress Tests; and

- Sizing, Sufficiency, and Adequacy Stress Tests – The STWG may recommend approval to the Management Committee (however, if timing considerations make such recommendation to the Management Committee impracticable, then STWG would make its recommendation to the OCEO) and the Risk Committee the creation or retirement of Adequacy, Sizing, or Sufficiency Stress Tests

Pursuant to the proposed Policy, any request for an exception to the Policy must be made in writing to a member of the OCEO, who would then be responsible for reviewing the exception request and providing a decision in writing to the person requesting the exception. All requests for exceptions and their dispositions would be reported to the Board or Risk Committee no later than its next regularly scheduled meeting, in a format approved by the Chair of the Board or Risk Committee. Finally, the Policy would require that violations of the Policy be reported to the Policy owner and OCC's Chief Compliance Officer.

#### ***6. Limitations on Reduction in Monthly Clearing Fund Size***

OCC also proposes to adopt rules imposing certain anti-procyclical measures for its monthly Clearing Fund sizing process. Under proposed Rule 1001(a), the size of the Clearing Fund would not be permitted to decrease more than 5% from month-to-month to avoid pro-cyclicality. This limitation, which is also reflected in the proposed Policy and Methodology Description, is designed to promote stability and to prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the look-back period.

In addition, if the results of a daily Sufficiency Stress Test over the final five business days preceding the monthly Clearing Fund sizing exceed 90% of the projected

Clearing Fund size for the upcoming month, the Clearing Fund size must be set such that the peak Sufficiency Stress Test draw is no greater than 90% of the Clearing Fund size. The proposed change is designed to reduce the likelihood that the Clearing Fund would be set at a size such that a Clearing Member Group with stress test exposures that are trending upward at the end of the sizing period would exceed the threshold for an intra-month resize immediately following the decline.

## *7. Clearing Fund Contribution Allocations*

### *a. Proposed Changes to Initial Contributions*

Pursuant to existing Article VIII, Section 2 of the By-Laws, the minimum initial Clearing Fund contribution of each newly admitted Clearing Member is set at an amount equal to at least \$150,000, which is also equal to OCC's minimum "fixed" contribution amount (discussed in detail below). Under proposed Rule 1002(d), which is based on existing Article VIII, Section 2(a), OCC would increase the initial Clearing Fund contribution amount to \$500,000. OCC's existing minimum contribution requirements have been in place since June 5, 2000,<sup>38</sup> and as a result, OCC undertook an analysis to determine the appropriateness of this amount given the passage of time. As part of this analysis, OCC considered a number of factors such as the potential impact on Clearing Members that are at the minimum or otherwise below or just over the newly proposed

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<sup>38</sup> On June 5, 2000, the Commission approved a proposed rule change by OCC to merge the equity and non-equity elements of its Clearing Fund into a combined Clearing Fund with a minimum contribution requirement of \$150,000. See Securities Exchange Act Release No. 42897 (June 5, 2000), 65 FR 36750 (June 9, 2000) (SR-OCC-99-9). OCC notes that, as a practical matter, the \$150,000 minimum contribution amount dates back prior to June 2000 for the majority of its Clearing Members as most members already contributed to both the equity and non-equity elements of the Clearing Fund and were subject to a \$75,000 minimum contribution for each element prior to the June 2000 rule change.

\$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. For example, OCC notes that the minimum initial (and fixed) contribution requirement has remained static over time while the Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the proposed changes described herein. Additionally, OCC reviewed the contribution requirements of other CCPs and noted that they were well in excess of OCC's current minimum contribution requirement (and in several cases, would be in excess of the newly proposed minimum amount).<sup>39</sup> OCC also performed an analysis of Clearing Members that had a Clearing Fund contribution requirement larger than the current minimum requirement of \$150,000 but less than or equal to the proposed requirement of \$500,000.<sup>40</sup> OCC also reviewed the impact of this change and discussed it with potentially impacted Clearing Members firm, the majority of which did not express concerns over the proposed increase. As a result of this analysis, OCC determined \$500,000 would be the appropriate initial and minimum Clearing Fund contribution amount required to maintain membership at OCC. Consistent with existing authority,

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<sup>39</sup> For example, at the time of OCC's analysis, ICE Clear US had a minimum contribution requirement of \$2,000,000 and CME had minimum contribution requirements of \$500,000 for exchange listed futures and options and \$2.5 million for OTC products covered in its Base Guaranty Fund.

<sup>40</sup> Based on this analysis, OCC determined that there are currently eleven Clearing Members either subject to the minimum Clearing Fund contribution requirement of \$150,000 or below the proposed \$500,000 requirement that would be impacted by the proposal.

OCC's Risk Committee would also be able to fix a different initial contribution amount with regard to any new Clearing Member at the time its application is approved. In either case, the initial contribution amount would remain in effect for not more than three months after the admission of the relevant Clearing Member. After that time, or at an earlier time as may be determined by the Risk Committee, the Clearing Member's contribution amount would instead be determined using the allocated contribution method in proposed Rule 1003. OCC also proposes to clarify in new Rule 1002(d) that initial contribution requirements would at all times remain subject to the minimum "fixed amount" of \$500,000 under proposed Rule 1003 and to adjustments by OCC under Rule 1004.

**b. *Proposed Changes to Contribution Allocation Methodology***

Current Rule 1001(b) provides, in part, that each Clearing Member's monthly contribution requirement is based on a sum of \$150,000 (which is a fixed amount, equal to the current initial contribution amount) plus such Clearing Member's proportionate share of the amount necessary for OCC to maintain the total Clearing Fund size required under Rule 1001(a) (which is a variable amount). OCC proposes to adopt new Rule 1003(a), which would increase the minimum "fixed" contribution amount to \$500,000, consistent with the proposed increase in the minimum initial contribution described above. Specifically, proposed Rule 1003(a) would provide that each Clearing Member's contribution to the Clearing Fund shall equal the sum of (x) \$500,000 (a higher "fixed amount," equal to the proposed initial contribution amount described above) and (y) such Clearing Member's proportionate share of an amount sufficient to cause the amount of the Clearing Fund (after taking into account each Clearing Member's fixed amount) to be

equal to the Clearing Fund size determined pursuant to proposed Rule 1001(a) (the “variable amount”). The proposed change was determined under the same analysis and justification discussed above regarding the proposed change in the minimum initial contribution amount (i.e., OCC analyzed the potential impact on Clearing Members that are at the minimum fixed contribution amount or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory expectations on OCC given its status as a systemically important financial market utility). Collectively, proposed Rules 1002(d) and Rule 1003(a) would effectively provide for a new minimum Clearing Fund contribution amount of \$500,000 per Clearing Member.<sup>41</sup>

OCC also proposes to clarify in proposed Rule 1004, in line with its current operational practice, that OCC may adjust an individual Clearing Member’s Clearing Fund contributions due to mergers, consolidations, position transfers, business expansions, membership approval, or other similar events in order to ensure that Clearing Fund allocations are appropriately aligned with the change in risks associated with such events (e.g., the increased risk a Clearing Member may present after taking on positions of another Clearing Member through a merger or position transfer).

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<sup>41</sup> OCC notes that the current exception for Futures-Only Affiliated Clearing Members in By-Law Article VIII, Section 2 and Rule 1001(f) would be retained under proposed Rules 1002(d) and 1002(f).



### 8. *Allocation Weighting Methodology*

Under existing Rule 1001(b), Clearing Fund contributions are allocated among Clearing Members based on a weighted average of each Clearing Member's proportionate share of total risk,<sup>42</sup> open interest, and volume in all accounts (including paired X-M accounts) according to the following weighting allocation methodology: 35% total risk, 50% open interest, and 15% volume. OCC proposes to modify its allocation methodology in new Rule 1003 to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they bring to OCC. Specifically, OCC proposes that Clearing Fund contribution requirements would be based on an allocation methodology of 70% total risk, 15% volume and 15% open interest.<sup>43</sup> OCC also proposes to modify the volume component of the weighting allocation methodology to provide that OCC would use cleared volume, as opposed to executed volume, to base the allocation on where the position is ultimately cleared.<sup>44</sup>

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<sup>42</sup> As noted above, "total risk" in this context means the margin requirement with respect to all accounts of the Clearing Member Group exclusive of the net asset value of the positions in such accounts aggregated across all such accounts.

<sup>43</sup> Under the proposed Policy, this new allocation approach would be phased in over a three month period following implementation of the proposed changes herein by gradually shifting 35% of the weighting to total risk from open interest by 10% in the first month, 10% in the second month, and 15% in the third month. Accordingly, OCC proposes conforming changes to delete Interpretation and Policy .03 of Rule 1001, which concerns the phase-in of the former allocation methodology, and would no longer be required.

<sup>44</sup> For both volume and open interest, OCC would adjust stock loan shares by a factor of 100 to normalize them with the size of a standard option contract. Interpretation and Policy .04 of existing Rule 1001, which concerns the calculation used to determine cleared contract equivalent units for stock loan and borrow positions, would be relocated to Interpretation and Policy .01 of proposed Rule 1003 without change.

In addition, OCC proposes to adopt new Interpretation and Policy .02 of Rule 1003, which would be based without material amendment on the clauses in paragraphs (d) and (e) of current Rule 1001 that address how OTC options are included within the fraction used to compute a Clearing Member's proportionate share of open interest and volume, respectively. The numerator and denominator in each case would continue to include OTC option contracts within the number of open cleared contracts of a Clearing Member, with that number of OTC option contracts being adjusted to ensure that it is approximately equal to the number of options contracts, other than OTC option contracts, that would cover the same notional value or units of the same underlying interest. OCC believes that placing this aspect of the computation in an Interpretation and Policy would enhance the readability of Rule 1003(b).

OCC's contribution allocation and associated weighting methodology also would be generally described in the proposed Policy and Methodology Description documents.

#### ***9. Reduction in Time to Fund Deficits***

OCC proposes to adopt new Rule 1005(a), which would address the time within which a Clearing Member would generally be required to satisfy a deficit in its required Clearing Fund contribution to reduce the timeframe during which OCC potentially would be operating with less than its required amount of Pre-Funded Financial Resources. As a general rule, whenever a report made available by OCC as described in proposed Rule 1007 shows a deficit, the applicable Clearing Member(s) would be required to satisfy the deficit in a form approved by OCC no later than one hour after being notified by OCC of such deficit. Examples of deficits that would need to be satisfied by this deadline include those caused by a decrease in the value of a Clearing Member's contribution or by an

adjusted contribution pursuant to proposed Rule 1004. The one-hour deadline would be subject to the application of alternative timing requirements specified in Chapter X, such as in the case of deficits arising due to regular monthly sizing or an intra-month resizing (as addressed in proposed Rule 1005(b)), and deficits arising due to amendments of OCC's Rules (as addressed in proposed Rule 1002(e)). Proposed Rule 1004 would also provide OCC with discretion to agree to alternative written terms regarding the satisfaction of a deficit that would otherwise be governed by the requirements described above.

Proposed Rule 1005(b), which is based on existing Rule 1003 with certain modifications, would address deficits arising due to regular monthly sizing of the Clearing Fund under proposed Rule 1001(a), as well as due to intra-month sizing adjustments under proposed Rule 1001(c). The proposed provision would reduce the amount of time within which a Clearing Member must satisfy a deficit shown on a report made available by OCC under Rule 1007 from five business days of the date on which the report is made available to two business days of such date. OCC believes that this change is appropriate because it would expedite adjustment of Clearing Fund contributions to the appropriate size as determined by OCC and allow OCC to respond more quickly in rapidly changing or emergency market conditions.

Proposed Rule 1002(e) would address the circumstance in which a Clearing Member's contribution is increased as a result of an amendment of OCC's Rules. The proposed provision is based on existing By-Law Article VIII, Section 2(b), modified, however, to require that such an increased contribution be satisfied within two business days of the Clearing Member receiving notice of the amendment, rather than within five

business days of such notice (as is required under current By-Law Article VII, Section 2(b)). For the reasons noted above, OCC believes that this change is appropriate because it would expedite both the effectiveness of the increased contribution requirement (and, indirectly, the size of the Clearing Fund) and the actual funding of Clearing Member contributions related thereto. Consistent with OCC's current requirement, a Clearing Member would not be obligated to make such an increased contribution, however, if, before the effective date of the relevant amendment, it notifies OCC in writing that it is terminating its status as a Clearing Member and closes out or transfers all of its open long and short positions. In addition, newly proposed Interpretation and Policy .02 of Rule 1002 would clarify that the authority of a Clearing Member to terminate its status as such under Rule 1006(h) regarding assessments by OCC is separate and distinct from the analogous authority under Rule 1002(e) concerning membership terminations in connection with an increase in Clearing Fund contributions due to a change in OCC's Rules.

In addition, and consistent with existing operational practice, new Rule 1005(c) would establish that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. The proposed rule change is designed to ensure that OCC is able to obtain funds owed from its Clearing Members to satisfy a Clearing Fund deficit in a timely fashion so that OCC can continue to meet its overall financial resource requirements as stipulated under its rules and by applicable regulatory requirements. Any such withdrawn amount would thereafter be treated as a

cash contribution to the Clearing Fund. The provision would also clarify that, if OCC is unable to withdraw an amount equal to the deficit, the Clearing Member's failure to satisfy such deficit in accordance with OCC's Rules may subject such Clearing Member to disciplinary action or suspension, including under Chapters XI and XII of OCC's Rules.

OCC also proposes to specify in proposed Rules 1005(b) and 1002(e) that Clearing Members shall have until 9:00AM Central Time on the second business day after the issuance of the Clearing Fund Status Report to meet their required Clearing Fund contribution if such contribution increases as a result of monthly Clearing Fund sizing or an intra-month resizing of the Clearing Fund. The proposed change would more closely align with the settlement time for the collection of other deficits (e.g., the required time for making good any deficiency generally under existing Article VIII, Section 6 of the By-Laws or for satisfying any margin deficits under Rule 605). The proposed change would also be reflected in the proposed Policy.

Finally, OCC proposes to relocate the substance of current Rule 1002 (regarding Clearing Fund reports) to proposed Rule 1007, with modifications that allow OCC to provide more real-time transparency to Clearing Members by mandating more frequent reporting, as well as certain modifications to address the intra-month resizing of the Clearing Fund. Current Rule 1002 provides that OCC must make available to each Clearing Member, within ten days after the close of each calendar month, a report that lists the current amount and form of such Clearing Member's contribution, the amount of the contribution required of such Clearing Member for the current calendar month, and any surplus over and above the amount required for the current calendar month. Under

proposed Rule 1007, OCC would make available each business day certain reports listing the current amount and form of each Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member (including the Clearing Member's required cash contribution to the Clearing Fund, as discussed in more detail in Section 10 below) and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. OCC would also issue a report whenever the calculated size of the Clearing Fund has changed, whether as the result of regular monthly sizing of the Clearing Fund or otherwise.

#### ***10. Anti-Procyclicality Measures in OCC's Margin Methodology***

OCC proposes to amend current Rule 601(c), regarding margin requirements for accounts other than customers' accounts and firm non-lien accounts, to clarify in OCC's Rules that OCC's existing methodology for calculating margin requirements incorporates measures designed to ensure that margin requirements are not lower than those that would be calculated using volatility estimated over a historical look-back period of at least ten years. The proposed change reflects an existing practice in OCC's margin methodology and is intended only to provide more clarity and transparency regarding this anti-procyclicality measure in OCC's Rules.

#### ***11. Other Clarifying, Conforming, and Organizational Changes***

OCC also proposes a number of other clarifying, conforming, and organizational changes to its By-Laws, Rules, Collateral Risk Management Policy, Default Management Policy, and Clearing Fund-related procedures in connection with the proposed enhancements to its Pre-Funded Financial Resources and the relocation of OCC's Clearing Fund-related By-Laws into Chapter X of the Rules. Specifically, proposed

Rules 1006(a)–(c) would address both the purpose of the Clearing Fund and the seven conditions under which the Clearing Fund generally may be used by OCC to make good certain losses that it suffers. The proposed Rule is based on a consolidation of existing Article VIII, Section 1(a) (concerning the maintenance and purpose of the Clearing Fund) and Section 5(a)–(c) (concerning the application of the Clearing Fund) with minor modifications. Accordingly, under proposed Rule 1006, and consistent with existing authority, OCC would maintain, and be permitted to use, the Clearing Fund to make good losses relating to: (1) the failure of a Clearing Member to discharge an obligation on or arising from any confirmed trade accepted by OCC; (2) the failure of any Clearing Member or the Canadian Depository for Securities to perform its obligations under or arising from any exercised or assigned option contract or matured future or any other contract or obligation issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable;<sup>45</sup> (3) the failure of any Clearing Member in respect of its stock loan or borrow positions to perform its obligations to OCC; (4) any liquidation of a Clearing Member’s open positions; (5) any protective transactions effected for OCC’s own account under Chapter XI of the Rules regarding the suspension of a Clearing Member; (6) the failure of any Clearing Member to make any required payment or render any required performance; or (7) the failure of any bank or securities or commodities

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<sup>45</sup> OCC notes that proposed Rule 1006(a) would contain a minor modification to clarify that matured futures contracts are included within the scope of other contracts or obligations issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable.

clearing organization to perform obligations to OCC under certain conditions as set forth in proposed Rule 1006(c).<sup>46</sup>

Proposed Rule 1006(g) would address payments to and from Cross-Guaranty Parties<sup>47</sup> in respect of Common Members.<sup>48</sup> This provision is based on current Article VIII, Sections 5(f) and 5(g) of OCC's By-Laws, which would be transferred to Rule 1006(g) without material changes. OCC would, therefore, continue to use a suspended Clearing Member's Clearing Fund contribution, after appropriately applying other funds in the accounts of the Clearing Member, to make a required payment to a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of such Clearing Member. Proposed Rule 1006(g) would clarify, however, that OCC would credit funds to the Clearing Fund that it receives in respect of a suspended Clearing Member from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement, where OCC must still make a charge on a proportionate basis against other Clearing Members' required contributions to the Clearing Fund even after application of such funds, or where

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<sup>46</sup> Existing Interpretation and Policy .01 and .02 of Article VIII, Section 5 concerning the share of any deficiency to be borne by each Clearing Member as a result of a charge against the Clearing Fund would be consolidated and relocated to new Interpretation and Policy .01 of Rule 1006 with only minor, non-substantive conforming changes and cross-references to new Interpretation and Policy .01 of Rule 1006 would be added to proposed Rules 1006(b) and (c) to provide additional clarity in OCC's rules.

<sup>47</sup> A Cross-Guaranty Party is a party, other than OCC, to a Limited Cross Guaranty Agreement, which is an agreement between OCC and one or more other clearing corporations and/or clearing organizations relating to the cross-guaranty by OCC and the other party or parties of certain obligations of a suspended Common Member to the parties to the agreement. See Article I, Section 1.C.(35) of the By-Laws (defining Cross-Guaranty Party) and Section 1.L.(4) (defining Limited Cross-Guaranty Agreement).

<sup>48</sup> A Common Member is "a Clearing Member that is concurrently a member or participant of a Cross-Guaranty Party." See Article I, Section 1.C.(27) of the By-Laws.



OCC has already made a charge on a proportionate basis against other Clearing Members' required contributions to the Clearing Fund.

Proposed Interpretation and Policy .02-.04 to Rule 1006 would also address certain aspects of payments to and from Cross-Guaranty Parties in respect of Common Members. All of these proposed provisions are based without material amendment on existing Interpretations and Policies to Article VIII, Section 5 of OCC's By-Laws, as described below.

Proposed Interpretation and Policy .02 to Rule 1006 is based without material amendment on existing Interpretation and Policy .03 to Article VIII, Section 5 of OCC's By-Laws. Under the proposed Interpretation and Policy, if OCC has a deficiency after it applies all the available funds of a suspended Common Member but cannot determine whether, when, or in what amount it will be entitled under a Limited Cross-Guaranty Agreement to receive funds from a Cross-Guaranty Party, OCC may make a charge against other Clearing Members' contributions for the deficiency in accordance with Rule 1006(b). If OCC receives funds from a Cross-Guaranty Party after making such a charge, OCC would credit the funds to the Clearing Fund in accordance with Rule 1006(g).

Proposed Interpretation and Policy .03 to Rule 1006 is based without material amendment on existing Interpretation and Policy .04 to Article VIII, Section 5 of OCC's By-Laws. Under the proposed Interpretation and Policy, if OCC has a deficiency after it applies all the available funds of a suspended Common Member and OCC determines that it is likely to receive funds from a Cross-Guaranty Party under a Limited Cross-Guaranty Agreement, OCC may, in anticipation of receipt of such funds, forego making a charge, or make a reduced charge in accordance with proposed Rule 1006(b), against

other Clearing Members' Clearing Fund contributions. If OCC does not subsequently receive the funds or receives a smaller amount than anticipated, OCC may make a charge or additional charges against contributions in accordance with proposed Rule 1006(b).

Proposed Interpretation and Policy .04 to Rule 1006 is based without material amendment on existing Interpretation and Policy .05 to Article VIII, Section 5 of OCC's By-Laws. Under the proposed Interpretation and Policy, if, under a Limited Cross-Guaranty Agreement, OCC receives funds from a Cross-Guaranty Party in respect of a suspended Common Member but is subsequently required to return such funds for any reason, OCC may make itself whole by making a charge or additional charges, as the case may be, against the contributions of Clearing Members, other than the suspended Common Member.

Existing Article VIII, Section 1(b) of OCC's By-Laws, which concerns the general lien on all cash, Government securities, and other property of the Clearing Member contributed to the Clearing Fund, would be moved without material change to new Rule 1006(i). Additionally, existing Interpretation and Policy .02 of Article VIII, Section 3 of OCC's By-Laws, which concerns the treatment of securities deposited in an account of OCC at an approved custodian, would be relocated to new Rule 1006(j) without change.

OCC also proposes to relocate existing Article VIII, Sections 5(c), and (e) of OCC's By-Laws, which concern notice of any charges against the Clearing Fund, the use of current and retained earnings to address losses, and the use of the Clearing Fund to

effect borrowings, to new Rules 1006(d), (e), and (f),<sup>49</sup> respectively, without material amendment.<sup>50</sup> OCC would also relocate existing Article VIII, Section 6 of OCC's By-Laws, which concerns the making good of any charges against the Clearing Fund (i.e., Clearing Fund replenishment and assessments) to new Rule 1006(h) without material changes.<sup>51</sup> The proposed Policy and Methodology Description would also contain a discussion of OCC's Clearing Fund replenishment and assessment powers generally intended to reflect this existing authority in the By-Laws. In addition, the proposed Policy would (1) provide the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer with the authority to approve proportionate charges against the Clearing Fund and (2) require that OCC's Accounting department maintain procedures for the allocation of losses due to a Clearing Member default and to replenish the Clearing Fund in the event a deficiency in the Clearing Fund results from events other than those specified in proposed Rule 1006.

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<sup>49</sup> Under clause (i) of new Rule 1006(f), OCC would also be permitted to take possession of Government securities in anticipation of a potential default by or suspension of a Clearing Member, as is currently the case under existing Interpretation and Policy .06 to Article VIII, Section 5.

<sup>50</sup> OCC notes that it would make a number of non-substantive clarifying changes to the rule text in proposed Rule 1006 so that existing rule text referencing "computed contributions to the Clearing Fund" and "as fixed at the time" would be rephrased as "required contributions to the Clearing Fund" and "as calculated at the time." The proposed change is designed to more accurately reflect that these rules are intended to refer to a Clearing Member's required Clearing Fund contribution amount as calculated under the proposed Rules, Policy and Methodology Description and eliminate any potential confusion with a Clearing Member's "fixed amount" as determined under Rule 1003(a).

<sup>51</sup> OCC notes that it would modify the rule text in question to clarify that a Clearing Member's obligation to make good the deficiency in its Clearing Fund contribution, resulting from a proportionate charge or otherwise, would be in relation to its currently "required" contribution amount and not the amount of the contribution on deposit as of the time of the charge.

Additionally, OCC proposes to amend the definition of “Clearing Fund” in Article I and Article V, Section 3 of the By-Laws to reflect the fact that OCC’s Clearing Fund-related provisions would now be contained in Chapter X of the Rules. In addition, OCC proposes to change references to “Chapter 11” of the Rules in Article VI, Section 27 of OCC’s By-Laws to “Chapter XI” To conform the references to OCC’s Rules. OCC proposes conforming changes to Rule 1106 to reflect the reorganization of Article VIII of the By-Laws into Chapter X of the Rules. OCC also proposes to amend Rule 609 to change the term “securities” to “contracts” to clarify that its authority to call for intra-day margin also applies to non-securities products cleared by OCC.

OCC also proposes conforming changes to delete existing Interpretations and Policies .02 and .03 of Rule 1001, which deal with the minimum confidence level used to size the Clearing Fund and the phase-in of the former weighting allocation methodology, respectively. Under the proposed change, the confidence level used to size the Clearing Fund and the phase-in of the proposed weighting allocation methodology would be addressed in the Policy and Methodology Description (as described above). As a result, these Interpretations and Policies would no longer be needed.

In addition, consistent with its effort to aggregate all Clearing Fund-related provisions to Chapter X of the Rules, OCC proposes to relocate Article VIII, Sections 7 (Contribution Refund) and 8 (Recovery of Loss) of the By-Laws to new Rules 1009, and 1010, respectively, without material amendment.

OCC also proposes to relocate certain By-Law provisions related to the form and method of Clearing Fund contributions into Chapter X of the Rules. Specifically, OCC proposes to relocate Article VIII, Section 3(a) and (c); Interpretation and Policy .04 to

Article VIII, Section 3; and Article VIII, Section 4 to proposed Rule 1002 concerning Clearing Fund contributions. These By-Law provisions would be relocated to Chapter X of the Rules without material amendment. OCC also would relocate Interpretation and Policy .01 to Rule 1001 concerning minimum Clearing Fund size into new Rule 1001(b). The form and method of OCC's Clearing Fund contributions also would be generally described in the proposed Policy and Methodology Description documents. In addition, and consistent with current OCC practice, the proposed Policy would impose a requirement that the specific securities eligible to be used as Clearing Fund contributions be permitted to be pledged in exchange for cash through one of OCC's committed liquidity facilities so that OCC continues to maintain sufficient eligible securities to fully access such facilities.

As noted above, under proposed Rule 1007, OCC would make available on a daily basis certain reports listing the current amount and form of each Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member, and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. Proposed Rule 1007 would also include reporting on the Clearing Member's required cash contribution to the Clearing Fund.

OCC also proposes to relocate existing Rule 1004 (Withdrawals) to new Rule 1008 and would modify the proposed rule to reflect that Clearing Members may withdraw excess Clearing Fund deposits on the same day that OCC issues a report to the Clearing Member showing a surplus (as opposed to the following business day), which is consistent with current operational practices.

In addition, OCC proposes to update references to Article VIII of the By-Laws in its Collateral Risk Management Policy and Default Management Policy to reflect the relocation of OCC's Clearing Fund-related By-Laws into Chapter X of the Rules.

Finally, OCC currently maintains procedures regarding its processes for (i) the monthly resizing of its Clearing Fund (Monthly Clearing Fund Sizing Procedure), (ii) the addition of financial resources through intra-day margin calls and/or an intra-month increase of the Clearing Fund to ensure that it maintains adequate financial resources in the event of a default of a Clearing Member/Clearing Members Group presenting the largest exposure to OCC (FRMC Procedure), and the execution of any intra-month resizing of the Clearing Fund (Clearing Fund Intra-Month Re-sizing Procedure).<sup>52</sup> OCC proposes to retire its existing Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure as these procedures would no longer be relevant to OCC's proposed Clearing Fund and stress test methodology and would be replaced by the proposed Rules, Policy and Methodology Description described herein.

OCC's Monthly Clearing Fund Sizing Procedure provides that the Clearing Fund is resized on the first business day of each month by identifying the peak five-day rolling average of Clearing Fund Draws (using OCC's current Clearing Fund methodology) over the most recent three-month period. This peak five-day rolling average is supplemented with a prudential margin of safety of \$1.8 billion. The Monthly Clearing Fund Sizing Procedure further describes the internal procedural and administrative steps taken by OCC staff in the monthly Clearing Fund sizing processes (e.g., the internal reports and

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<sup>52</sup> See supra note 10.

processes used to populate relevant data and calculate the monthly Clearing Fund size and the internal reporting and notifications made by OCC staff during the resizing process). Under the proposed Policy and Methodology Description, OCC would continue to determine the Clearing Fund size for a given month by using a peak five-day rolling average of Clearing Fund Draws over the prior three months; however, these calculations would be done using the proposed Sizing Stress Test results and would no longer require a prudential margin of safety.<sup>53</sup> The remaining internal procedural and administrative steps taken by OCC staff in the monthly Clearing Fund sizing processes would no longer be “rules” of OCC as defined by the Exchange Act<sup>54</sup> as those aspects of the procedure: (1) would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodologies and processes, (2) would be reasonably and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC’s Clearing Fund-related operations.<sup>55</sup>

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<sup>53</sup> See supra note 21.

<sup>54</sup> Section 19(b)(1) of the Exchange Act requires a self-regulatory organization (“SRO”) such as OCC to file with the Commission any proposed rule or any proposed change in, addition to, or deletion from the rules of such SRO. See 15 U.S.C. 78s(b)(1). Section 3(a)(27) of the Exchange Act defines “rules of a clearing agency” to mean its (1) constitution, (2) articles of incorporation, (3) bylaws, (4) rules, (5) instruments corresponding to the foregoing and (6) such “stated policies, practices and interpretations” (“SPPI”) as the Commission may determine by rule. See 15 U.S.C. 78c(a)(27). Exchange Act Rule 19b-4(a)(6) defines the term “SPPI” to mean, in addition to certain publicly facing statements, “any material aspect of the operation of the facilities of the [SRO].” See 17 CFR 240.19b-4(a)(6). Rule 19b-4(c) provides, however, that an SPPI may not be deemed to be a proposed rule change if it is: (i) reasonably and fairly implied by an existing rule of the SRO or (ii) concerned solely with the administration of the SRO and is not an SPPI with respect to the meaning, administration, or enforcement of an existing rule the SRO.

<sup>55</sup> OCC notes that it would adopt new internal procedures to address the procedural and administrative steps associated with the monthly Clearing Fund sizing,

OCC's FRMC Procedure outlines various responsibilities, deliverables and communications with respect to OCC's financial resource monitoring and resource call processes. While the FRMC Procedure describes material aspects of OCC's current financial resource monitoring and call-related operations, it also describes the non-material procedural and administrative steps taken by OCC staff in carrying out these processes. For example, the FRMC Procedure contains procedural steps for (1) comparing Clearing Fund Draws against the Clearing Fund size and determining whether applicable thresholds are breached, (2) internal notifications and reporting within OCC regarding the imposition of enhanced monitoring or recommendations for margin calls or intra-month resizing of the Clearing Fund,<sup>56</sup> (3) other external communications to Clearing Members<sup>57</sup> regarding margin calls, and (4) determining whether a cash draft is required to satisfy a deficit resulting from a margin call. Under the proposal, the proposed Policy would continue to describe the material aspects of OCC's Clearing Fund operations as they relate to the financial resource monitoring and resource call process under the new Clearing Fund and stress testing methodology, subject to a number of

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Clearing Fund sufficiency monitoring, and intra-month resizing processes; however, these procedures would not be filed as "rules" of OCC under the Exchange Act. These procedures also would conform to the proposed changes described herein.

<sup>56</sup> OCC notes that the weekly reporting process currently described in the FRMC Procedure would no longer be codified in the "rules" of OCC; however, the proposed Policy would establish new governance, monitoring and review requirements for OCC's Clearing Fund and stress testing methodology, which are described in detail above.

<sup>57</sup> The proposed Policy would contain a general requirement that Clearing Members be notified of any intra-day margin calls under the policy but the procedural details of such notification would be contained in the Clearing Fund Sufficiency Monitoring Procedure.



modifications describe above.<sup>58</sup> Any remaining procedural details would not be “rules” of OCC as OCC believes that those aspects of the procedures: (1) would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodologies and processes, (2) would be reasonably and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC’s Clearing Fund-related operations.

OCC’s Clearing Fund Intra-Month Re-sizing Procedure outlines the various internal responsibilities, deliverables and communications with respect to an intra-month re-sizing the Clearing Fund as determined under the FRMC Procedure. The procedure describes the procedural and administrative steps taken by OCC staff in the intra-month resizing process, including the procedural steps for (1) calculating increased contribution requirements based on various internal reports and processes, (2) preparing information memoranda announcing an intra-month resizing, (3) internal notifications and reporting within OCC regarding an intra-month resizing, (4) other external communications to Clearing Members<sup>59</sup> and OCC’s regulators regarding an intra-month resizing of the Clearing Fund, and (5) determining whether a cash draft is required to satisfy a deficit resulting from an intra-month resizing of the Clearing Fund. Under the proposed changes described herein, these procedural details would not be “rules” of OCC as OCC believes that those aspects of the procedure: (1) would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodologies and processes, (2) would be reasonably

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<sup>58</sup> See e.g., supra notes 32-36 and associated text.

<sup>59</sup> The proposed Policy would contain a general requirement that Clearing Members, OCC’s Risk Committee, and OCC’s regulators be notified of any intra-month Clearing Fund resizing but the procedural details of such notification would be contained in the Clearing Fund Sizing Procedure.

and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC's Clearing Fund-related operations.

(2) Statutory Basis

Section 17A(b)(3)(F) of the Act<sup>60</sup> requires, among other things, that the rules of a clearing agency be designed to promote the prompt and accurate clearance and settlement of securities and derivatives transactions, to assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, to protect investors and the public interest. OCC believes that the proposed changes, and in particular, the new Clearing Fund and stress testing methodology, would both enhance OCC's risk management capabilities as well as promote OCC's ability to more thoroughly size, monitor and test the sufficiency of its Pre-Funded Financial Resources under a wide range of hypothetical and historical stress scenarios. The proposed Clearing Fund and stress testing methodology is designed to improve OCC's ability to calibrate its Pre-Funded Financial Resources to withstand a broader range of extreme but plausible circumstances under which its one or two largest Clearing Members may default, thereby reducing the risk that such resources would be insufficient in an actual default. As a result, the proposed rule change is designed, in general, to enhance OCC's framework for measuring and managing its credit risks so that it can continue to provide prompt and accurate clearance and settlement of securities and derivatives transactions, assure the safeguarding of securities and funds which are in its custody or control or for which it is

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<sup>60</sup> 15 U.S.C. 78q-1(b)(3)(F).

responsible, and, in general, protect investors and the public interest consistent with Section 17A(b)(3)(F) of the Act.<sup>61</sup>

As noted above, the proposed Clearing Fund and stress testing methodology would enhance OCC's framework for testing the sizing, adequacy, and sufficiency of its Pre-Funded Financial Resources by incorporating a wide range of extreme hypothetical and historical stress scenarios. Under the proposal, OCC would establish a new risk tolerance with respect to sizing OCC's Pre-Funded Financial Resources to cover a 1-in-50 year hypothetical market event at a 99.5% confidence level over a two-year look-back period. As noted above, OCC believes that a 1-in-50 year hypothetical market event represents the outer range of extreme but plausible scenarios for OCC's cleared products. As a result, OCC would size its Clearing Fund based on more conservative 1-in-80 year Hypothetical Scenarios, and would do so under a more conservative Cover 2 Standard, so that OCC sizes its Clearing Fund on a monthly basis at a level designed to cover its potential exposures under extreme but plausible market conditions. Moreover, OCC would utilize Sufficiency Stress Tests to evaluate the sufficiency of its Pre-Funded Financial Resources against potential credit exposures arising from range of scenarios to determine whether OCC should: (1) implement the enhanced monitoring of Clearing Fund Draws, (2) require additional margin deposits, or (3) re-size the Clearing Fund on an intra-month basis so that OCC continues to maintain sufficient financial resources to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure in extreme but plausible market conditions. Moreover, the

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<sup>61</sup> Id.

proposed changes would introduce a number of Informational Stress Tests that would serve as valuable risk management tools for OCC to monitor and assess its Pre-Funded Financial Resources against a wide range of scenarios, including but not limited to extreme but implausible and reverse stress test scenarios.

The proposed changes also would introduce certain anti-procyclical measures into the monthly Clearing Fund sizing process designed to limit the potential decrease of the Clearing Fund's size from month to month and therefore reduce the likelihood that a market shock would require OCC to call for further resources from Clearing Members on an intra-month basis. The measures would prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the three month look-back period, and also reduce the likelihood that the Clearing Fund would be set at a size such that a Clearing Member Group with stress test exposures that are trending upward at the end of the sizing period would exceed the threshold for an intra-month resize immediately following monthly resizing of the Clearing Fund.

Taken together, OCC believes that the proposed changes to its Clearing Fund and stress testing methodology and Policy are designed to improve OCC's ability to calibrate its Pre-Funded Financial Resources, and when necessary, call for additional financial resources from its Clearing Members, so that it can withstand a wide range of stress scenarios under which its one or two largest Clearing Members may default, thereby reducing the risk that such resources would be insufficient in an actual default and enhancing OCC's ability to manage risks in its role as a systemically important financial market utility. As a result, OCC believes the proposed rule change is designed to enable OCC to manage its credit risks so that it can continue providing prompt and accurate

clearance and settlement of securities and derivatives transactions, assuring the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, protect investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>62</sup>

OCC also proposes to increase its minimum initial and fixed Clearing Fund contribution amounts from \$150,000 to \$500,000. The proposed change would require a small subset of OCC's Clearing Members to contribute a relatively modest increase in their mutualized contribution to OCC's Clearing Fund (at most, a \$350,000 increase). In proposing the new minimum contribution amounts, OCC analyzed, among other things, the potential impact on Clearing Members that are at the minimum or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. In particular, OCC notes that its existing initial and minimum fixed contribution requirements have been in place since June 5, 2000, while its Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the proposal described herein.<sup>63</sup> OCC believes that the proposed increase is appropriate given the increase in OCC's overall Clearing Fund size and is in line with or lower than the minimum requirements of

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<sup>62</sup> Id.

<sup>63</sup> See supra note 38 and accompanying text.

other CCPs.<sup>64</sup> OCC believes the proposed change to its minimum contribution amounts would require Clearing Members to contribute an appropriate amount of mutualized resources to OCC's default waterfall and is therefore designed to protect investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>65</sup>

Additionally, OCC proposes to modify its allocation weighting methodology to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they present to OCC. Specifically, under the proposed Policy, Clearing Fund contribution requirements would be based on an allocation methodology of 70% of total risk, 15% of volume and 15% of open interest (as opposed to the current weighting of 35% total risk, 50% open interest, and 15% volume). In addition, OCC proposes to modify the volume component of its Clearing Fund contribution allocation weighting methodology to provide that OCC would use cleared volume, as opposed to executed volume, to base the volume component of the allocation on where the position is ultimately cleared as opposed to where it was executed. OCC believes that these changes would better align incentives for each Clearing Member to reduce the risk it introduces to the Clearing Fund by determining each Clearing Member's proportionate share of the Clearing Fund based on the risk it presents to OCC. As a result, OCC believes the proposed rule change is designed, in general, to protect investors and the public interest consistent with Section 17A(b)(3)(F) of the Act.<sup>66</sup>

OCC also proposes a number of changes to its Rules to generally reduce the time for Clearing Members to fund Clearing Fund deficits. Specifically, new Rule 1005(a)

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<sup>64</sup> See supra note 39.

<sup>65</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>66</sup> Id.

would require that a Clearing Member satisfy any deficit in its required Clearing Fund contribution resulting from a decrease in the value of a Clearing Member's contribution or by an adjusted contribution pursuant to proposed Rule 1004 by no later than one hour after being notified by OCC of such deficit. In addition, OCC would reduce the amount of time within which a Clearing Member must satisfy a deficit from five business days of the date on which the report is made available to two business days of such date for any deficit arising due to regular monthly sizing of the Clearing Fund, an intra-month resizing of the Clearing Fund, or in circumstance in which a Clearing Member's contribution is increased as a result of an amendment of OCC's Rules. Additionally, and consistent with existing operational practice, the proposed changes would specify that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. OCC also proposes to specify that Clearing Members shall have until 9:00AM Central Time on the second business day after the issuance of the Clearing Fund Status Report to meet their required Clearing Fund contribution if such contribution increases as a result of monthly Clearing Fund sizing or an intra-month resizing of the Clearing Fund to more closely align with the settlement time for the collection of other deficits (e.g., the required time for making good any deficiency generally under existing Article VIII, Section 6 of the By-Laws or for satisfying any margin deficits under Rule 605). The proposed change is designed to ensure that OCC is able to obtain funds owed from its Clearing Members in a timely fashion so that OCC can continue to meet its overall financial resource requirements, thereby reducing the risk presented to OCC. As

a result, OCC believes the proposed rule change is designed to enable OCC to manage its credit risks so that it can continue providing prompt and accurate clearance and settlement of securities and derivatives transactions, assuring the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, protect investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>67</sup>

OCC also proposes a number of non-material changes, such as relocating provisions of OCC's By-Laws concerning the Clearing Fund to its Rules, making other clarifying and conforming changes to its Rules, Collateral Risk Management Policy and Default Management Policy, and clarifying certain pro-cyclicality measures in its existing margin methodology, which are not expected to have any impact on OCC's risk management practices or the risk presented to OCC or its participants. OCC believes that making these clarifying and conforming changes to its rules would provide more clarity around, and enhance the readability of, OCC's Clearing Fund requirements and thereby provide OCC's members and the public a clearer understanding of OCC's rules. OCC believes, therefore, that its rules following incorporation of the proposed changes, would be designed to, in general, protect the investors and the public interest in a manner consistent with Section 17A(b)(3)(F) of the Act.<sup>68</sup>

Taken together, OCC believes the enhancements discussed in this proposed rule change would provide for a more comprehensive approach to managing OCC's credit risks and would allow OCC to more accurately measure its credit risk exposures, better

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<sup>67</sup> Id.

<sup>68</sup> Id.



test the sufficiency of its financial resources, and respond quickly when OCC believes additional financial resources are required. Accordingly, for the reasons set forth above, OCC believes that the proposed rule change would enhance OCC's ability to measure and manage its credit risks and is therefore designed to promote the promote and accurate clearance and settlement of securities and derivatives transactions, to assure the safeguarding of securities and funds in the custody or control of the clearing agency or for which it is responsible, and, in general, to protect investors and the public interest in accordance with Section 17A(b)(3)(F) of the Act.<sup>69</sup>

OCC further believes the proposed rule change is consistent with the Act and the rules thereunder for the reasons set forth below.

#### **Clearing Fund Sizing and Sufficiency Changes**

Rule 17Ad-22(b)(3)<sup>70</sup> requires a registered clearing agency that performs CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain sufficient financial resources to withstand, at a minimum, a default by the participant family to which it has the largest exposure in extreme but plausible market conditions. Rules 17Ad-22(e)(4)(iii) and (iv)<sup>71</sup> further require, in part, that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by maintaining additional financial resources (beyond those collected as margin or otherwise maintained to meet

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<sup>69</sup> Id.

<sup>70</sup> 17 CFR 240.17Ad-22(b)(3).

<sup>71</sup> 17 CFR 240.17Ad-22(e)(4)(iii) and (iv).

the requirements of Rule 17Ad-22(e)(4)(i)<sup>72</sup>) at the minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions and do so exclusive of assessments for additional guaranty fund contributions or other resources that are not prefunded.

OCC believes that the proposed changes to its By-Laws, Rules and Clearing Fund and stress testing methodology are reasonably designed to measure and manage OCC's credit exposures to participants by maintaining sufficient Pre-Funded Financial Resources to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure in extreme but plausible market conditions. In order to achieve this, OCC proposes to establish a risk tolerance with regard to the sizing of the Clearing Fund equal to a 1-in-50 year hypothetical market event, which OCC believes represents the outer range of extreme but plausible scenarios for OCC's cleared products for purposes of Rule 17Ad-22(e)(4) under the Act.<sup>73</sup> In order to ensure sufficient coverage of this risk tolerance, which OCC believes represents the outer range of extreme but plausible market conditions for the purposes of Rule 17Ad-22(e)(4) under the Act,<sup>74</sup> and to guard against intra-month scenario volatility and procyclicality, OCC proposes to size its Clearing Fund based on a more conservative 1-in-80 year hypothetical market event (i.e., the Sizing Stress Tests) on a Cover 2 Standard. The proposed changes are

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<sup>72</sup> 17 CFR 240.17Ad-22(e)(4)(i)

<sup>73</sup> 17 CFR 240.17Ad-22(e)(4).

<sup>74</sup> Id.

designed to size the Clearing Fund at a level that would be expected to cover OCC's potential exposures under extreme but plausible market conditions. In addition, OCC's Rules, Policy, and Methodology Description would provide for the collection of additional resources on an intra-month basis if certain Sufficiency Scenario thresholds are breached, as discussed in more detail above. These stress tests are designed, in total, to result in the collection of sufficient Pre-Funded Financial Resources (which by definition in the Policy would exclude OCC's replenishment and assessment powers), and when necessary call for additional financial resources, to cover a wide range of stress scenarios, including extreme but plausible market conditions.

Additionally, the proposed changes to avoid pro-cyclicality in the Clearing Fund (e.g., preventing the Clearing Fund from decreasing more than 5% from month-to-month and using a three-month look back period in sizing the Clearing Fund) are designed to promote stability and to prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the look-back period. OCC believes that this conservative approach to anti-procyclicality would help to ensure that OCC continues to maintain adequate Pre-Funded Financial Resources during periods where volatility decreases significantly, market conditions change rapidly, or Clearing Member business activity causes a significant decrease in stress test results.

OCC further believes that the proposed changes to its Rules to generally reduce the timeframe in which Clearing Members must meet deficits in their Clearing Fund contributions are appropriate because it would expedite the adjustment of Clearing Fund contributions to the appropriate size as determined by OCC's new Clearing Fund and stress test methodology, thereby allowing the Clearing Fund to respond more quickly in

rapidly changing or emergency market conditions. Moreover, consistent with existing operational practice, new Rule 1005(c) would establish that, upon the failure of a Clearing Member for any reason to timely satisfy a deficit regarding its required Clearing Fund contribution, OCC would be authorized to withdraw an amount equal to such deficit from the Clearing Member's bank account maintained in respect of an OCC firm account. The proposed rule change is designed to ensure that OCC is able to obtain funds owed from its Clearing Members in a timely fashion so that OCC can continue to meet its overall financial resource requirements. OCC believes the proposed changes would help to ensure that OCC maintains sufficient resources to meet its financial resource requirements under Rule 17Ad-22.<sup>75</sup>

For these reasons, OCC believes the proposed changes are reasonably designed so that OCC can measure and manage its credit exposure to its participants through the maintenance of additional financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for OCC in extreme but plausible market conditions, and do so exclusive of assessments for additional Clearing Fund contributions or other resources that are not prefunded, in a manner consistent with Rule 17Ad-22(b)(3) and Rules 17Ad-22(e)(4)(iii) and (iv).<sup>76</sup>

### **Proposed Stress Testing and Clearing Fund Methodology**

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<sup>75</sup> Id.

<sup>76</sup> 17 CFR 240.17Ad-22(b)(3) and (e)(4)(iii) and (iv).

Rule 17Ad-22(e)(4)(vi)(A)<sup>77</sup> requires, in part, that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by testing the sufficiency of its total financial resources available to meet the minimum financial resource requirements under Rule 17Ad-22(e)(4)(iii)<sup>78</sup> by conducting stress testing of its total financial resources once each day using standard predetermined parameters and assumptions.

OCC proposes to adopt a new stress testing methodology, as described in the proposed Policy and Methodology Description, to enable OCC to conduct a variety of Sizing Stress Tests, Adequacy Stress Tests, Sufficiency Stress Tests and Informational Stress Tests, each of which play different but complementary roles in promoting OCC's ability to more robustly identify, measure, monitor and manage its credit risks to its participants. These stress tests would be run on a daily basis using standard predetermined parameters and assumptions and would allow OCC to test the sufficiency of its Pre-Funded Financial Resources under a wide range of Historical Scenarios, which take into account stresses on a number of factors such as price and volatility, as well as testing the adequacy of OCC's Pre-Funded Financial Resources with respect to its proposed risk tolerance. In turn, these stress tests would enable OCC to more effectively design margin and Clearing Fund requirements that are calibrated to cover Clearing Member defaults under such scenarios. The proposed Clearing Fund and stress testing

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<sup>77</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(A).

<sup>78</sup> 17 CFR 240.17Ad-22(e)(4)(iii).

methodology would also use Sufficiency Stress Tests to determine whether OCC should call for additional collateral to ensure that it consistently maintains sufficient financial resources. OCC believes that the proposed changes are therefore designed to allow OCC to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, by testing the sufficiency of its Pre-Funded Financial Resources available to meet its minimum financial resource requirements under Rule 17Ad-22<sup>79</sup> in a manner consistent with Rule 17Ad-22(e)(4)(vi).<sup>80</sup>

### **Clearing Fund and Stress Testing Governance, Monitoring, and Review**

Rule 17Ad-22(e)(4)(vi) and (vii)<sup>81</sup> require, in part, that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by (i) conducting a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and considering modifications to ensure they are appropriate for determining the covered clearing agency's required level of default protection in light of current and evolving market conditions; (ii) conducting a comprehensive analysis of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by the covered clearing agency's

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<sup>79</sup> 17 CFR 240. 17Ad-22.

<sup>80</sup> 17 CFR 240. 17Ad-22(e)(4)(vi).

<sup>81</sup> 17 CFR 240. 17Ad-22(e)(4)(vi)(B)-(D) and (vii).

participants increases significantly; (iii) reporting the results of such analyses to appropriate decision makers at the covered clearing agency, including but not limited to, its risk management committee or board of directors, and using these results to evaluate the adequacy of and adjust its margin methodology, model parameters, models used to generate clearing or guaranty fund requirements, and any other relevant aspects of its credit risk management framework, in supporting compliance with the minimum financial resources requirements; and (iv) performing a model validation for its credit risk models not less than annually or more frequently as may be contemplated by the covered clearing agency's risk management framework.

The proposed Policy would set forth requirements for the daily and monthly monitoring, review, and reporting of stress test results. Specifically, under the Policy, STLRM would monitor the results of all of the Adequacy and Sufficiency Stress Tests on a daily basis and immediately escalate any material issues identified with respect to the adequacy of OCC's financial resources to the STWG and the Management Committee to determine if it would be appropriate to recommend a change to the stress test scenarios used to size the Clearing Fund. In addition, the Policy would require that STWG perform a comprehensive monthly analysis of OCC's stress testing results, as well as information related to the scenarios, models, parameters, and assumptions impacting the sizing of the Clearing Fund and evaluate their appropriateness for determining OCC's required level of financial resources in light of current and evolving market conditions. Moreover, the Policy would require that such review be conducted more frequently than monthly when the products cleared or markets served display high volatility or become less liquid; the

size or concentration of positions held by OCC's participants increases significantly; or as otherwise appropriate.

Pursuant to the proposed Policy, STLRM would report the results of stress tests and its comprehensive monthly analysis to OCC's Management Committee and Risk Committee on at least a monthly basis and would maintain procedures for determining whether, and in what circumstances, the results of such stress tests should be reported to the Management Committee or the Risk Committee more frequently than monthly, and would indicate the persons responsible for making that determination. In the performance of the monthly review of stress testing results and analysis and considering whether escalation is appropriate, the Policy would require that due consideration be given to the intended purpose of the Policy to: (a) assess the adequacy of, and adjust as necessary, OCC's total amount of financial resources; (b) support compliance with the minimum financial resources requirements under applicable regulations; and (c) evaluate the adequacy of, and recommend adjustments to OCC's margin methodology, margin parameters, models used to generate margin or guaranty fund requirements, and any other relevant aspects of OCC's credit risk management.

In addition, the proposed Policy would require that OCC's Model Validation Group perform a model validation of OCC's Clearing Fund model on an annual basis and that the Risk Committee would be responsible for reviewing the model validation report.

Based on the foregoing, OCC believes that the proposed Policy is reasonably designed to ensure that OCC: (i) conducts a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and considers modifications to ensure they are appropriate for determining



OCC's required level of default protection in light of current and evolving market conditions; (ii) conducts a comprehensive analysis of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by OCC's participants increases significantly; (iii) reports the results of such analyses to appropriate decision makers, including but not limited to, OCC's Management Committee and the Risk Committee of the Board, and uses these results to evaluate the adequacy of and adjust its margin methodology, model parameters, models used to generate Clearing Fund requirements, and any other relevant aspects of its credit risk management framework, in supporting compliance with the minimum financial resources requirements; and (iv) performs a model validation for its credit risk models not less than annually or more frequently as may be contemplated by OCC's risk management framework in accordance with Rules 17Ad-22(e)(4)(vi) and (vii).<sup>82</sup>

#### **Proposed Changes to Minimum Contribution Amount and Allocation Methodology**

Rule 17Ad-22(e)(4)<sup>83</sup> generally requires that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. With respect to the use of Clearing Funds and the requirements of Rule 17Ad-22(e)(4),<sup>84</sup> the Commission has noted that, to the extent that a clearing agency uses guaranty or clearing fund

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<sup>82</sup> Id.

<sup>83</sup> 17 CFR 240.17Ad-22(e)(4).

<sup>84</sup> Id.

contributions to mutualize risk across participants, the clearing agency generally should value margin and guaranty fund contributions so that the contributions are commensurate to the risks posed by the participants' activity, and the clearing agency also generally should consider the appropriate balance of individualized and pooled elements within its default waterfall, with a careful consideration of whether the balance of those elements mitigates risk and to what extent an imbalance among those elements might encourage moral hazard, in that one participant may take more risks because the other participants bear the costs of those risks.<sup>85</sup>

OCC believes that the proposed changes to its initial and minimum Clearing Fund contribution amounts strike an appropriate balance between individualized and mutualized resources for new Clearing Members and those Clearing Members with minimal open interest. As noted above, OCC's existing initial and minimum fixed contribution requirements have been in place since June 5, 2000, while its Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the proposal described herein.<sup>86</sup> As a result, OCC undertook an analysis to determine the appropriateness of this amount. As discussed in detail above, OCC considered a number of factors such as the potential impact on Clearing Members that are at the minimum or otherwise below or just over the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the

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<sup>85</sup> See Securities Exchange Act Release No. 78961 (September 28, 2016), 81 FR 70786 (October 13, 2016) (S7-03-14) ("Standards for Covered Clearing Agencies") at 70813.

<sup>86</sup> See supra note 38 and accompanying text.

Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. OCC believes that the proposed increase is appropriate given the increase in OCC's overall Clearing Fund size and is in line with or lower than the minimum requirements of other CCPs.<sup>87</sup> OCC therefore believes the proposed change is reasonably designed to ensure OCC is able to manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes in a manner that considers an appropriate balance of individualized and pooled elements within its default waterfall.

Additionally, OCC proposes to modify its allocation weighting methodology to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they bring to OCC. Specifically, the proposed Clearing Fund contribution requirements would be based on an allocation methodology of 70% of total risk, 15% of volume and 15% of open interest (as opposed to the current weighting of 35% total risk, 50% open interest, and 15% volume). OCC believes that this change would better align incentives for each Clearing Member to reduce the risk it introduces to the Clearing Fund by determining each Clearing Member's proportionate share of the Clearing Fund based on the risk it presents to OCC. OCC also proposes to modify the volume component of its Clearing Fund contribution allocation weighting methodology to provide that OCC would use cleared volume, as opposed to executed volume, to base the volume component of the allocation on where the position is ultimately cleared as opposed to where it was executed. OCC believes that the proposed change is designed to more

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<sup>87</sup> See supra note 39.

appropriately allocate contribution requirements commensurate to the risks posed by its Clearing Members.

For these reasons, OCC believes that the proposed changes are designed to manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes in a manner consistent with Rule 17Ad-22(e)(4).<sup>88</sup>

### **Other Clarifying, Conforming and Organizational Changes**

Rule 17Ad-22(e)(1)<sup>89</sup> requires a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for a well-founded, clear, transparent, and enforceable legal basis for each aspect of its activities in all relevant jurisdictions. OCC believes that the proposed clarifying, conforming, and organizational changes to its By-Laws and Rules are designed to provide Clearing Members with enhanced transparency and clarity regarding their obligations associated with the Clearing Fund. As discussed above, the primary provisions that address OCC's Clearing Fund are currently split between Article VIII of the By-Laws and Chapter X of the Rules. Consolidating all of these provisions to Chapter X of the Rules would provide Clearing Members with a single location in which to find and understand the primary obligations that are associated with the Clearing Fund. In addition, OCC would make a number of non-substantive changes to its rules designed to provide additional clarity and transparency, including for example: (1) consolidating existing Interpretation and Policy .01 and .02 of Article VIII, Section 5 concerning the share of any deficiency to be borne by each Clearing Member as a result of a charge

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<sup>88</sup> 17 CFR 240.17Ad-22(e)(4).

<sup>89</sup> 17 CFR 240.17Ad-22(e)(1).

against the Clearing Fund into new Interpretation and Policy .01 of Rule 1006 with conforming changes and cross-references to new Interpretation and Policy .01 of Rule 1006 being added to proposed Rules 1006(b) and (c) to provide additional clarity in OCC's rules; (2) making minor modifications to proposed Rule 1006(a) to clarify that matured futures contracts are included within the scope of other contracts or obligations issued, undertaken, or guaranteed by OCC or in respect of which OCC is otherwise liable; (3) clarifying in the proposed Policy that the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer would have the authority to approve proportionate charges against the Clearing Fund; (4) clarifying in the proposed Policy that OCC's Accounting department is responsible for maintaining procedures for the allocation of losses due to a Clearing Member default and to replenish the Clearing Fund in the event a deficiency in the Clearing Fund results from events other than those specified in proposed Rule 1006; (5) revising Rule 609 to change the term "securities" to "contracts" to clarify that OCC's authority to call for intra-day margin also applies to non-securities products cleared by OCC; (6) codifying in the proposed Policy the existing OCC practice that the specific securities eligible to be used as Clearing Fund contributions be permitted to be pledged in exchange for cash through one of OCC's committed liquidity facilities so that OCC continues to maintain sufficient eligible securities to fully access such facilities; (7) clarifying in proposed Rule 1002 that the circumstances and terms for a Clearing Member terminating its clearing membership due to an increase in Clearing Fund contribution resulting from an amendment of the Rules is separate from the circumstances and terms for a Clearing Member terminating its status as a result of a proportionate charge against the Clearing Fund; (8) clarifying in the

introduction to Chapter X of the Rules that the size of the Clearing Fund shall at all times be subject to minimum sizing requirements and generally be calculated on a monthly basis by OCC; however, the calculated size of the Clearing Fund may be determined more frequently than monthly under certain conditions specified in proposed Rule 1001; and (9) rephrasing current rule text referencing “computed contributions to the Clearing Fund” and “as fixed at the time” to be “required contributions to the Clearing Fund” and “as calculated at the time” to more accurately reflect that these rules are intended to refer to a Clearing Member’s required Clearing Fund Contribution amount as calculated under the proposed Rules, Policy and Methodology Description and eliminate any potential confusion with a Clearing Member’s “fixed amount” as determined under Rule 1003(a). OCC believes that this additional clarity, transparency and enhanced readability regarding the primary provisions pertaining to the Clearing Fund help to provide for a well-founded, clear, transparent and enforceable legal basis for the rights and obligations of Clearing Members and OCC regarding the Clearing Fund consistent with Rule 17Ad-22(e)(1).<sup>90</sup>

In addition, Section 19(b)(1) of the Exchange Act and Rule 19b-4 thereunder set forth the requirements for SRO proposed rule changes, including the regulatory filing requirements for SPPIs.<sup>91</sup> OCC proposes to retire its existing Clearing Fund Intra-Month Re-sizing Procedure, FRMC Procedure, and Monthly Clearing Fund Sizing Procedure, which were previously filed as “rules” with the Commission,<sup>92</sup> as these procedures would no longer be relevant to OCC’s proposed Clearing Fund and stress testing methodology

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<sup>90</sup> Id.

<sup>91</sup> See supra note 54.

<sup>92</sup> See supra note 10.

and processes. Under the proposal, the material aspects of OCC's Clearing Fund-related operations would be contained in the proposed Rules, Policy and Methodology Description described herein. Any applicable procedural details would not be "rules" of OCC as those aspects of the procedures: (1) would no longer be relevant to OCC's proposed Clearing Fund and stress testing methodologies and processes, (2) would be reasonably and fairly implied by the proposed Rules, Policy, and Methodology Description, and/or (3) would otherwise not be deemed to be material aspects of OCC's Clearing Fund-related operations. Accordingly, OCC believes the proposed changes would be consistent with the requirements of Rule 17Ad-22(e)(1).<sup>93</sup>

For the reasons set forth above, OCC believes the proposed rule change is designed to assure the safeguarding of securities and funds at OCC and, in general, protect investors and the public interest consistent with Section 17A(b)(3)(F) of the Act<sup>94</sup> and the rules promulgated thereunder.

(B) Clearing Agency's Statement on Burden on Competition

Section 17A(b)(3)(I) of the Act<sup>95</sup> requires that the rules of a clearing agency not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. While certain aspects of the proposal would have an impact on certain Clearing Members, specifically in the form of higher Clearing Fund contribution requirements, OCC does not believe that the proposed rule change would impose any burden on competition not necessary or appropriate in furtherance of the purposes of the

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<sup>93</sup> Id.

<sup>94</sup> Id.

<sup>95</sup> 15 U.S.C. 78q-1(b)(3)(I).

Act. The potential impact on Clearing Members, and the appropriateness of those changes to further of the purposes of the Act, is described in detail below.

OCC is proposing a number of changes to its Clearing Fund and stress testing methodology (specifically, the implementation of a Cover 2 Standard for the Clearing Fund; newly proposed risk tolerance; newly proposed stress testing framework for developing and maintaining Sizing, Adequacy, Sufficiency and Informational Stress Tests; changes in timing for funding Clearing Fund deficits; and related governance, monitoring and review activities), which may have an impact on certain of its Clearing Members due to potential changes in the total amount of Pre-Funded Financial Resources OCC would be required to maintain on a monthly basis and the need for OCC call for additional resources from particular Clearing Members on an intra-month basis. For example, the proposed methodology changes could at times result in significant changes to OCC's overall Clearing Fund size relative to the current methodology (resulting in either larger or smaller relative Clearing Fund sizes). In addition, OCC would adopt new Sufficiency Stress Tests to determine whether OCC should call for additional resources from its Clearing Members on an intra-month basis, which may impact a wider subset of OCC's Clearing Members than those typically subject to margin calls under the current methodology and FRMC Procedure.<sup>96</sup> OCC does not believe the proposed changes to its Clearing Fund and stress testing methodology (including the introduction of new Sufficiency Scenarios) would unfairly inhibit access to OCC's services or disadvantage

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<sup>96</sup> OCC notes that, under its current methodology, the Clearing Fund has ranged in size from \$5.7 billion to \$17.9 billion since January 2016, which can result in significant changes in Clearing Fund contribution requirements and the need for, and size of, intra-month margin calls or Clearing Fund resizing under its existing FRMC Procedure.



or favor any particular user in relationship to another user. The proposed changes are designed to improve OCC's ability to measure, monitor and manage its credit exposures to its participants consistent with its regulatory requirements under Rules 17Ad-22(b)(3) and (e)(4)<sup>97</sup> and thereby enhance OCC's ability to manage risks in its role as a systemically important financial market utility. As a result, OCC believes that any impact on competition or OCC's Clearing Members would be necessary and appropriate in furtherance of the protection of investors and the public interest under the Act.

OCC also proposes a number of changes to its Clearing Fund contribution allocation requirements, which would have an impact on OCC's Clearing Members. Under the proposed rule change, those Clearing Members currently contributing the minimum initial and fixed amounts (or amounts under or slightly higher than the proposed minimums) would primarily be impacted by the increase in the minimum Clearing Fund contribution requirement.<sup>98</sup> As discussed above, OCC's existing initial and minimum fixed contribution requirements have been in place since June 5, 2000,<sup>99</sup> and as a result, OCC undertook an analysis to determine the appropriateness of its current minimum requirements given the passage of time and the evolution of OCC's overall

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<sup>97</sup> 17 C.F.R. 240.17Ad-22(b)(3) and (e)(4).

<sup>98</sup> OCC notes that there are currently eleven Clearing Members either subject to the minimum Clearing Fund contribution requirement of \$150,000 or below the proposed \$500,000 requirement. OCC also notes that other Clearing Members with generally smaller contribution requirements, and for which the contribution requirement consists mostly of the minimum fixed amount, would be more significantly impacted by the introduction of a higher minimum amount into the allocation formula. In addition, firms preparing to withdraw from membership by reducing open positions as they wind down their business or new Clearing Members coming online and slowly increasing their business could be impacted by the change in minimum fixed and initial contributions, respectively.

<sup>99</sup> See supra note 38.

Clearing Fund size. As part of this analysis, OCC considered, among other things, the potential impact on Clearing Members that are at the minimum or otherwise close to the newly proposed \$500,000 requirement, the impact to those members in dollar and percentage terms as well as compared to their net capital, evolving market conditions, evolution in the size of the Clearing Fund, minimum contribution requirements of other CCPs, and heightened regulatory obligations on OCC given its status as a systemically important financial market utility. In particular, OCC notes that its existing initial and minimum fixed contribution requirements have remained static since June 2000, while its Clearing Fund has grown from approximately \$2 billion in 2000 to several multiples of that, both currently and under the proposal described herein. In addition, the proposed minimum contribution requirement of \$500,000 is in line with or lower than the minimum requirements of other CCPs.<sup>100</sup> As a result of this analysis, OCC determined \$500,000 would be an appropriate initial and minimum Clearing Fund contribution amount to maintain membership at OCC. OCC believes that the proposed minimum contribution requirement considers a proper balance of individualized and pooled elements within its default waterfall and would not unduly inhibit access to OCC's services or otherwise impose a burden competition. Moreover, OCC believes the proposed changes to its minimum contribution requirements are reasonably designed to ensure that OCC is able to manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes and therefore any competitive impact would be necessary and appropriate in furtherance of the purposes of protecting investors and the public interest under the Act.

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<sup>100</sup> See supra note 39.

Additionally, OCC proposes to modify its allocation weighting methodology to more closely align Clearing Members' Clearing Fund contribution requirements with the level of risk they bring to OCC. Specifically, the proposed Clearing Fund contribution requirements would be based on an allocation methodology of 70% of total risk, 15% of volume and 15% of open interest (as opposed to the current weighting of 35% total risk, 50% open interest, and 15% volume). The proposed change would result in potentially higher contribution requirements for Clearing Members with large shares of overall margin relative to open interest, which could be the result of a portfolio that contains directional exposures driving higher margin requirements or accounts that have significant exposures in futures subject to customer gross margining requirements. OCC believes that this change is prudent from a risk management perspective as it would better align each Clearing Member's contribution requirement with the risk it presents to OCC by requiring those members that bring elevated levels of risk to contribute more to the Clearing Fund and thereby incentivize those firms to reduce the risk of their exposures. As a result, OCC believes that any impact on competition would be necessary and appropriate in furtherance of the purposes of protecting investors and the public interest under the Act.

OCC also proposes to modify the volume component of its Clearing Fund contribution allocation weighting methodology to provide that OCC would use cleared volume, as opposed to executed volume, in allocating Clearing Fund contribution requirements. OCC believes that the proposed change also is designed to more appropriately allocate contribution requirements commensurate to the risks posed by its Clearing Members by basing the volume component of the allocation on where the

position is ultimately cleared, and where the risk is ultimately maintained, as opposed to where it was executed. OCC notes that the Clearing Members most directly impacted by the proposed change are execution-only Clearing Members that directly give up trades through transfers to other Clearing Members and do not to clear or carry positions on a routine basis, and would therefore generally see reduced contribution requirements due to the change from executed volume to cleared volume. OCC believes the overall impact to non-execution-only Clearing Members due only to the change to cleared volume would be minimal. As a result, OCC does not believe the proposed change would have an impact or impose a burden on competition.

OCC also proposes a number of non-material changes, such as relocating provisions of OCC's By-Laws concerning the Clearing Fund to its Rules, making other clarifying and conforming changes to its Rules, Policy and procedures, and clarifying certain pro-cyclicality measures in its existing margin methodology, which are not expected to have any impact 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 e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-OCC-2018-008 on the subject line.

Paper Comments:

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-OCC-2018-008. 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 such filing also will be available for inspection and copying at the principal office of OCC and on OCC's website at

<https://www.theocc.com/about/publications/bylaws.jsp>.

All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-OCC-2018-008 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>101</sup>

Secretary

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<sup>101</sup> 17 CFR 200.30-3(a)(12).

EXHIBIT 5A



**By-Laws**

Underlined text indicates new text

~~Strikethrough~~ text indicates deleted text

## Article I - Definitions

\* \* \*

SECTION 1. Unless the context requires otherwise (or except as otherwise specified in the By-Laws or Rules), the terms defined herein shall, for all purposes of these By-Laws and the Rules of the Corporation, have the meanings herein specified.

A. - B. [No change]

C.

(1) – (12) [No change]

### Clearing Fund

(14) The term "Clearing Fund" means the fund established pursuant to ~~Article VIII of the By-Laws~~Chapter X of the Rules.

(14) – (39) [No change]

D. – Z. [No change]

\* \* \*

## Article V - Clearing Members

\* \* \*

### Conditions to Admission

**SECTION 3.** No applicant shall be admitted as a Clearing Member until the applicant has deposited with the Corporation its initial contribution to the Clearing Fund in the amount required by ~~Article VIII of the By-Laws~~Chapter X of the Rules and has signed and delivered to the Corporation an agreement in such form as the Corporation shall require, including applicant's agreements (a) to clear through the Corporation, either directly or through another Clearing Member, all of its confirmed trades and all other transactions which the By-Laws or the Rules may require to be cleared through the Corporation, (b) to abide by all provisions of the By-Laws and the Rules and by all procedures adopted pursuant thereto, (c) that the By-Laws and the Rules shall be a part of the terms and conditions of every confirmed trade or other contract or



transaction which the applicant, while a Clearing Member, may make or have with the Corporation, or with other Clearing Members in respect of cleared contracts, or which may be cleared or required to be cleared through the Corporation, (d) to grant the Corporation all liens, rights and remedies set forth in the By-Laws and the Rules, (e) to pay to the Corporation all fees and other compensation provided by or pursuant to the By-Laws and the Rules for clearance and for all other services rendered by the Corporation to the applicant while a Clearing Member, (f) to pay such fines as may be imposed on it in accordance with the By-Laws and the Rules, (g) to permit inspection of its books and records at all times by the representatives of the Corporation and to furnish the Corporation with all information in respect of the applicant's business and transactions as the Corporation or its officers may require, (h) to make such payments to or in respect of the Clearing Fund as may be required from time to time, (i) to comply, in the case of Non-U.S. Securities Firms, with the guidelines and restrictions imposed on domestic broker-dealers regarding the extension of credit, as provided by Section 7 of the Securities Exchange Act of 1934 and Regulation T promulgated thereunder by the Board of Governors of the Federal Reserve System, with respect to any customer account that includes cleared contracts issued by the Corporation, (j) to comply, in the case of Non-U.S. Securities Firms, with the Rules of the Financial Industry Regulatory Authority governing maintenance margin and cut-off times for the submission of exercise notices by customers, and (k) to consent, in the case of Non-U.S. Securities Firms, to the jurisdiction of Illinois courts and to the application of United States law in connection with any dispute with the Corporation arising from membership.

\* \* \*

## ARTICLE VI - Clearance of Confirmed Trades

\* \* \*

### Close Out Netting

**SECTION 27.** (a) – (h) [No change]

(i) *Disposition of Remaining Margin Assets.* If the Clearing Member is solvent and has not been suspended pursuant to Chapter ~~44~~XI of the Rules, then any remaining restricted or unrestricted margin deposited by the Clearing Member and remaining after all permissible applications provided for above, shall be released to the Clearing Member to be treated and dealt with by the Clearing Member in accordance with applicable law. If the Clearing Member has been suspended by the Corporation pursuant to Chapter ~~44~~XI, then any restricted margin deposited by a Clearing Member and remaining after application of restricted margin to the full extent provided above shall be segregated to the extent required and held by the Corporation under an appropriate designation for distribution to the persons entitled thereto in accordance with applicable law. Any unrestricted margin remaining shall be held for distribution to the persons entitled thereto under applicable law.

(j) – (m) [No change]

\* \* \*

## Article VIII – Clearing Fund

The Corporation shall maintain a Clearing Fund, as provided in and subject to the terms of Chapter X of the Rules.

### ~~Maintenance and Purpose of the Clearing Fund~~

~~SECTION 1. (a) The Corporation shall maintain a Clearing Fund to which each Clearing Member shall contribute, as provided in this Article VIII, to make good losses suffered by the Corporation, or losses suffered by the Clearing Fund resulting from borrowings pursuant to the authority in Section 5(e) of this Article, (i) as a result of the failure of any Clearing Member to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) as a result of the failure of any Clearing Member (including any Appointed Clearing Member) or of CDS to perform its obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or any other contract or obligation issued, undertaken, or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) as a result of the failure of any Clearing Member to perform any of its obligations to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) in connection with any liquidation of a Clearing Member's open positions, (v) in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, (vi) as a result of the failure of any Clearing Member to make any other required payment or render any other required performance, (vii) as a result of the failure of any bank or securities or commodities clearing organization to perform its obligations to the Corporation for reasons specified in Section 5 of this Article, or (viii) as a result of a borrowing by the Corporation for liquidity needs for same day settlement pursuant to the authority in Section 5(e) of this Article.~~

~~(b) Without limiting any other rights granted herein, each Clearing Member grants to the Corporation a general lien on all cash, Government securities and other property of the Clearing Member contributed to the Clearing Fund (and any proceeds thereof) as security for any obligation of the Clearing Member to the Corporation including, without limitation, any obligation to satisfy a proportionate charge pursuant to Section 5 of this Article VIII.~~

### ~~Contributions of Clearing Members~~

~~SECTION 2. (a) The initial contribution of each Clearing Member to the Clearing Fund shall be \$150,000 or such greater amount as may be fixed by the Risk Committee in its discretion at the~~

~~time such Clearing Member's application is approved. Notwithstanding anything else to the contrary herein, the initial Clearing Fund contribution of a Futures-Only Affiliated Clearing Member may be fixed by the Risk Committee to be the amount calculated pursuant to clause (y) of Rule 1001 (b) if the conditions set forth in Rule 1001(f) are satisfied. The amount of such initial contribution shall remain in force until such time as determined by the Risk Committee (but in any event not later than the end of the first three calendar months commencing after the Clearing Member's admission to membership), after which time the amount of the Clearing Member's required contribution to the Clearing Fund shall be determined in accordance with the Rules.~~

~~(b) The formula for determining required Clearing Fund contributions may be altered from time to time by amendment of the Rules, but in no event shall the minimum required contribution to the Clearing Fund be less than \$150,000 except as provided in section 2(a) of this Article VIII with respect to a Futures-Only Affiliated Clearing Member. If the contribution to the Clearing Fund to be made by a Clearing Member is increased as a result of an amendment of the Rules, the increase shall not become effective until the Clearing Member is given five business days prior written notice of the amendment. Unless a Clearing Member notifies the Corporation in writing that it wishes to terminate its clearing membership and closes out or transfers all of its open long and short positions before the effective date of such amendment, such Clearing Member shall be liable to make the increased contribution.~~

### **Form of Contributions**

~~**SECTION 3.** (a) Form and Method of Contributions. Contributions to the Clearing Funds shall be in cash or in government securities.~~

~~(i) *Cash Clearing Fund Requirement.* Clearing Members shall collectively contribute \$3 billion in cash to the Clearing Fund ("Cash Clearing Fund Requirement"). Each Clearing Member's proportionate share of the Cash Clearing Fund Requirement shall be equal in percentage to its proportionate share of the Clearing Fund as determined by Rule 1001. The Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon providing notice to the Risk Committee, shall have the authority to temporarily increase the amount of cash required to be maintained in the Clearing Fund, up to an amount that includes the size of the Clearing Fund as determined in accordance with Rule 1001, for the protection of OCC, Clearing Members or the general public in accordance with the Corporation's policies and procedures. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in Clearing Fund size would (i) be based upon then-existing facts and circumstances, (ii) be in furtherance of the integrity of OCC and the stability of the financial system, and (iii) take into consideration the legitimate interests of Clearing Members and market participants. Any temporary increase in the cash Clearing Fund requirement shall be reviewed by the Risk Committee as soon as practical (but in any event, such review must occur within 20 calendar days of such increase) and, if such temporary increase is still in effect, the~~

~~Risk Committee shall determine whether (A) the increase in the cash Clearing Fund requirement is no longer required, or (B) OCC's rules should be modified to ensure that OCC continues to maintain sufficient liquidity resources.~~

~~(ii) *Government Securities.* Government securities shall be valued at (1) 99.5% of the current market value for maturities less than one year; (2) 98% of the current market value for maturities between one and five years; (3) 96.5% of the current market value for maturities between five and ten years; and (4) 95% of the current market value for maturities in excess of ten years. For the purposes of this Section, the current market value of Government securities shall be determined by the Corporation at such intervals as the Risk Committee shall from time to time prescribe, but not less often than monthly, on the basis of the quoted bid price therefor supplied by a source designated by the Corporation. Contributions of Government securities shall be deposited by the Clearing Member in an account of the Corporation in an approved custodian in the name of the Corporation or by such other method as the Corporation may from time to time approve.~~

~~(b) *Assets Denominated in a Foreign Currency.* Notwithstanding any other provision of this Section 3 of Article VIII, in determining the U.S. dollar amount of clearing fund credit to be given to any foreign currency or asset denominated in a foreign currency, the Corporation may use such exchange rates and apply such "haircuts" as it deems appropriate for its protection.~~

~~(c) *Interest or Gains on Government Securities.* Any interest or gain received or accrued on such securities shall belong to the contributing Clearing Member, and any interest on, or proceeds from the maturity of, such securities received by the Corporation shall be credited by the Corporation to an account of the Clearing Member on the records of the Corporation.~~

~~...Interpretations and Policies:~~

~~.01 The Corporation will not accept the delivery of a depository receipt from an approved custodian if the custodian, a parent or an affiliate has an equity interest in the amount of 20% or more of the contributing Clearing Member's total capital.~~

~~.02 Securities deposited in an account of the Corporation in an approved custodian in the name of the Corporation shall be credited to the Clearing Member's "clearing fund account," which shall be a securities account maintained on the records of the Corporation in the name of such Clearing Member, and the Corporation shall be the Clearing Member's securities intermediary with respect to such securities for purposes of Articles 8 and 9 of the Uniform Commercial Code. So long as any such securities and any proceeds thereof are so credited to the Clearing Member's clearing fund account, the Corporation shall have a general lien on and perfected security interest in and "control" over such securities and proceeds for purposes of Articles 8 and 9 of the Uniform Commercial Code.~~

~~.03 For a transition period specified by the Corporation, contributions of Government securities may be made in an account at an approved custodian in the name of the Clearing Member and pledged to the Corporation provided that such a contribution shall not be effective until the Corporation receives confirmation satisfactory to it that the securities have been so pledged through an EDP Pledge System.~~

~~.04 For purposes of paragraph (a)(i) of Section 3, a Clearing Member shall satisfy any increase in its required cash contribution pursuant to an increase in Cash Clearing Fund Requirement no later than one hour before the close of the Fedwire on the business day following the Corporation's issuance of an instruction to increase cash contributions.~~

### **Investment of Cash Clearing Fund Contributions**

~~SECTION 4. (a) Cash contributions to the Clearing Fund may from time to time be partially or wholly invested by the Corporation for its account in Government securities, and to the extent that such contributions are not so invested they shall be deposited by the Corporation in a separate account or accounts for Clearing Fund contributions in approved custodians, provided that such account or accounts may commingle the Clearing Fund contributions of different Clearing Members. Interest earned on cash deposits held at a Federal Reserve Bank shall accrue to the benefit of Clearing Members (calculated daily based on each Clearing Member's pro rata share of Clearing Fund cash deposits), provided that each such Clearing Member has provided OCC with all tax documentation as OCC may from time to time require in order to effectuate such payment, and all other interest earned on investments will accrue to the benefit of the Corporation.~~

### **Application of Clearing Fund**

~~SECTION 5. (a) If (i) any Clearing Member shall fail to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) any Clearing Member, (including any Appointed Clearing Member) or of CDS shall fail to perform any obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or any other contract or obligation issued or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) any Clearing Member shall fail to perform any obligation to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) the Corporation shall suffer any loss or expense upon any liquidation of a Clearing Member's open positions, (v) the Corporation shall suffer any loss or expense in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, or (vi) any Clearing Member shall fail to make any other payment or render any other performance required under the By-Laws or the Rules, then the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund contribution to the discharge of such obligation, the reimbursement of such loss or expense, or the making of such payment or~~

~~the funding of such performance. If the sum of all such obligations, losses or expenses, and payments exceeds the sum of the amount of the Clearing Member's total Clearing Fund contribution and the amount of the other funds of the Clearing Member available to the Corporation, and if the Clearing Member fails to pay the Corporation the amount of any such deficiency on demand, the amount of the deficiency shall be paid out of the Clearing Fund and charged on a proportionate basis against all other Clearing Members' computed contributions as fixed at the time, but the Clearing Member who failed to pay the deficiency shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.~~

~~For the purposes of this paragraph, any amount owed by the Corporation to a Participating CCO pursuant to a Participating CCO Agreement as the result of the liquidation of sets of X-M accounts shall be deemed to be a loss suffered by the Corporation upon the liquidation of positions in non-equity securities options.~~

~~(b) (i) If any bank or securities or commodities clearing organization shall fail to perform any obligation to the Corporation when due because of its bankruptcy, insolvency, receivership, suspension of operations, or because of any similar event, and the Corporation shall sustain a loss (whether directly or as a trustee, custodian, or secured party) by reason thereof that is not recoverable out of the Clearing Fund pursuant to paragraph (a), the Corporation may, in its discretion, reimburse itself for such loss out of the Clearing Fund pursuant to this paragraph (b)(i), and the amount of any such reimbursement shall be charged proportionately against all Clearing Members' computed contributions to the Clearing Fund as fixed at the time.~~

~~(ii) With respect to any borrowing by the Corporation for liquidity needs for same day settlement pursuant to the authority in paragraph (e) of this Section 5, if such borrowing remains outstanding for a period of less than thirty days, the Corporation may, in its discretion, consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' computed contributions to the Clearing Fund as fixed at the time, provided however, that if such borrowing remains outstanding on the thirtieth day, the Corporation shall consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' computed contributions to the Clearing Fund as fixed at the time.~~

~~To the extent that a loss resulting from any of the events referred to in this paragraph (b) is recoverable out of the Clearing Fund pursuant to paragraph (a), the provisions of paragraph (a) shall control, and this paragraph (b) shall be inapplicable.~~

~~(c) Whenever any proportionate charge is made against Clearing Members' computed contributions to the Clearing Fund, the Corporation shall promptly notify all Clearing Members of the amount of the charge and the reasons therefor. For the purposes of paragraphs (a) through (c), the amount of any loss sustained by the Corporation shall be determined without reference to~~

~~the possibility of any subsequent recovery in respect thereof, through insolvency proceedings or otherwise, but the net amount of any such recovery shall be applied in accordance with Section 8 of this Article.~~

~~(d) Notwithstanding the provisions of paragraphs (a) through (c), in lieu of charging a loss or deficiency proportionately to the Clearing Fund computed contributions of non defaulting Clearing Members pursuant thereto, the Corporation may, in its discretion, subject to the unanimous approval of the holders of Class A Common Stock and Class B Common Stock, elect to charge such loss or deficiency in whole or in part to the Corporation's current earnings or retained earnings. If such charge is made against current earnings, such charge shall be deemed a refund of clearing fees to the non defaulting Clearing Members to whose Clearing Fund contributions the loss or deficiency would otherwise have been charged, and in that case the Corporation shall notify each such Clearing Member of the aggregate amount of the charge against current earnings, the reasons therefor, and the amount deemed to have been refunded to such Clearing Member. As used herein, the term "current earnings" shall mean the Corporation's net income before taxes for the period from the beginning of the fiscal year in which a loss or deficiency occurs to the close of the calendar month immediately preceding the occurrence of such loss or deficiency, less an amount equal to the aggregate of all refunds of clearing fees made or authorized to be made or deemed to have been made for such fiscal year. If the Corporation elects to charge a deficiency in a Clearing Member's Clearing Fund contribution to the Corporation's current earnings or retained earnings, the Clearing Member shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.~~

~~(e) If (i) the Corporation deems it necessary or advisable to borrow or otherwise obtain funds from third parties in order to meet obligations arising out of the default or suspension of a Clearing Member or any action taken by the Corporation in connection therewith pursuant to Chapter XI of the Rules or otherwise; or (ii) the Corporation sustains a loss reimbursable out of the Clearing Fund pursuant to paragraph (b) but elects to borrow or otherwise obtain funds from third parties in lieu of immediately charging such loss to the Clearing Fund; or (iii) the Corporation reasonably believes it necessary to borrow to meet its liquidity needs for same day settlement as a result of the failure of any bank or securities or commodities clearing organization to achieve daily settlement, and in any case the Corporation determines that it will be unable to borrow or otherwise obtain such funds on acceptable terms on an unsecured basis; then the Corporation may take possession of cash or securities deposited by Clearing Members as contributions to the Clearing Fund and securities in which cash contributions to the Clearing Fund have been invested by the Corporation and use such assets to borrow or otherwise obtain funds through any means determined to be reasonable by the Executive Chairman, Chief Operating Officer or the Chief Administrative Officer of the Corporation in his discretion (including, without limitation, pledging such assets as security for loans and/or using such assets to effect repurchase, securities lending or other transactions); provided, in the case of any transaction effected under the circumstances specified in clause (i) or clause (iii) above, that the~~



~~funds obtained through such transaction will be used solely for the purposes described in clause (i) or clause (iii), as applicable. The funds obtained by the Corporation pursuant to this paragraph (e), irrespective of how such funds are applied, shall not be deemed to be charges against the Clearing Fund for a period not to exceed thirty days, and, during said period, shall not affect the amount or timing of any charges otherwise required to be made against the Clearing Fund pursuant to this Section. If all or a part of any transaction effected by the Corporation pursuant to this paragraph (e) remains outstanding after thirty days, the Corporation, at the close of business of the thirtieth day (or on the first Business Day thereafter), shall consider the amount of Clearing Fund assets used to support the Corporation's obligations under the outstanding transaction as an actual loss to the Clearing Fund and immediately allocate such loss in accordance with this Section.~~

~~(f) If the Corporation is obligated to make a payment to a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of a suspended Clearing Member, the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund contribution to make such payment, or to reimburse itself for such payment.~~

~~(g) If the Corporation receives any funds in respect of a suspended Clearing Member from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in circumstances in which the Corporation must still make a charge on a proportionate basis against other Clearing Members' computed contributions to the Clearing Fund even after application of such funds, or in circumstances in which the Corporation has already made a charge on a proportionate basis against other Clearing Members' computed contributions to the Clearing Fund, such funds shall be credited to the Clearing Fund.~~

~~--- Interpretations & Policies:~~

~~.01. For purposes of paragraph (a) of this Section 5, the share of any deficiency to be borne by each such other Clearing Member (i.e., excluding the deficient Clearing Member(s)) shall be a fraction, the numerator of which shall be the amount for such Clearing Member that is denoted as (y) in Rule 1001(b), and the denominator shall be the sum of those amounts denoted in (y) across all such other Clearing Members (i.e., excluding the deficient Clearing Member(s)).~~

~~.02 For purposes of paragraph (b) of this Section 5, a Clearing Member's proportionate share of any loss to be charged against such Clearing Member's contribution to the Clearing Fund shall be determined in accordance with the formula prescribed in Interpretation and Policy .01 above.~~

~~.03 If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contributions of the Clearing Member), and the Clearing Member is a Common Member but the Corporation cannot, in its discretion, determine whether or in what amount it will be entitled to~~



~~receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, or when it will receive such funds, the Corporation may, in its discretion, make a charge against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a). If the Corporation receives funds from a Cross-Guaranty Party in respect of the Clearing Member after making such a charge, the Corporation will allocate such funds to the Clearing Fund in accordance with the provisions of paragraph (g).~~

~~.04 If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contribution of the Clearing Member), and the Clearing Member is a Common Member and the Corporation determines in its discretion that it is likely to receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, the Corporation may, in its discretion and in anticipation of receipt of such funds from the Cross-Guaranty Party, forego making a charge, or make a reduced charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a). If the Corporation thereafter does not receive or determines that it is not likely to receive the anticipated funds from the Cross-Guaranty Party, or receives funds in a smaller amount than anticipated, the Corporation may, in its discretion, make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a).~~

~~.05 If the Corporation receives funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of a suspended Clearing Member, and is thereafter required for any reason whatsoever to refund such funds to the Cross-Guaranty Party, the Corporation may, in its discretion, make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a) (based on the other Clearing Members' computed contributions as fixed at the time of the refund), to make itself whole for the funds refunded to the Cross-Guaranty Party.~~

~~.06 In addition to being permitted to take possession of securities deposited by Clearing Members following a default or suspension that has already occurred, the Corporation may take possession of securities deposited by Clearing Members pursuant to clause (i) of paragraph (e) of this Section 5 in anticipation of a potential default by, or suspension of, a Clearing Member.~~

### **Making Good of Charges to Clearing Fund**

~~SECTION 6. Whenever an amount is paid out of the Clearing Fund contribution of a Clearing Member, whether by proportionate charge or otherwise, such Clearing Member shall be liable promptly to make good the deficiency in its contribution resulting from such payment. Notwithstanding the foregoing and except as provided for below, if the payment is made as a result of a proportionate charge, a Clearing Member will not be liable to make good more than an additional 100% of the amount of its then required contribution if (i) within five business days~~

~~following such proportionate charge the Clearing Member notifies the Corporation in writing that it is terminating its status as a Clearing Member, (ii) no opening purchase transaction or opening writing transaction is submitted for clearance through any of the Clearing Member's accounts and (if the Clearing Member is a Market Loan Clearing Member or a Hedge Clearing Member) no Stock Loan is initiated through any of the Clearing Member's accounts after the giving of such notice, and (iii) the Clearing Member closes out or transfers all of its open positions with the Corporation, in each case as promptly as practicable after the giving of such notice; provided that a Clearing Member which so terminates its status as a Clearing Member shall be ineligible to be readmitted to such membership unless the Clearing Member agrees to such reimbursement of the persons who were Clearing Members at the time of such termination as the Board of Directors deems fair and equitable in the circumstances. In the event a Clearing Member notifies the Corporation of its intent to terminate its status as a Clearing Member in accordance with the preceding sentence, and such Clearing Member's computed contribution is less than its minimum required contribution, then the Clearing Member shall also make good 100% of the amount equal to its minimum required contribution less its computed contribution to the Clearing Fund. Each Clearing Member shall have and shall at all times maintain the ability to make good any deficiency described in this Section 6 by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the first business day following the day on which the Corporation notifies the Clearing Member of such deficiency.~~

### **~~Contribution Refund~~**

~~SECTION 7. Whenever a Clearing Member definitively ceases to be such, the amount of its contribution to the Clearing Fund shall be returned to it, but not until all confirmed trades and open positions of the Clearing Member from which losses or payments chargeable to the Clearing Fund might result have been fulfilled or closed, or, with the approval of the Corporation, another Clearing Member has been substituted thereon. All amounts chargeable against a Clearing Member's contribution to the Clearing Fund on account of transactions that occurred while it was a Clearing Member, including proportionate charges and unpaid fees, shall be deducted from the amount returned. For purposes of this Section 7, a Clearing Member will be deemed to have definitively ceased to be a Clearing Member at such time as it has fulfilled all requirements of Sub-Sections (i) through (iii) of Section 6 of this Article and has met all outstanding obligations to the Corporation.~~

### **~~Recovery of Loss~~**

~~SECTION 8. If a loss charged proportionately against the contributions of Clearing Members is afterward recovered by the Corporation, in whole or in part, the net amount of such recovery shall be paid to the Clearing Members against whose contributions the loss was charged in proportion to the amounts charged against their respective contributions, whether or not they are still Clearing Members.~~

\* \* \*

## Article XI - Amendment of the By-Laws and the Rules

\* \* \*

### Amendment of the By-Laws

SECTION 1. The By-Laws may be amended at any time by the Board of Directors upon the affirmative vote of two-thirds of the directors then in office (but not less than a majority of the number of directors fixed by these By-Laws); provided that Sections 2, 3 and 5 of Article II, Article III, the second sentence of Section 1 of Article IV, the first two sentences of Section 1 of Article V, the first sentence of Section 10 of Article VI, Section 11 and 11A of Article VI, Article VIIA, Article VIIB, ~~the first sentence of Section 5(d) of Article VIII,~~ Section 9 of Article IX, ~~and~~ this Section 1 of Article XI, and the second sentence of Section 2 of Article XI may not be amended by action of the Board of Directors without the approval of the holders of all of the outstanding Common Stock of the Corporation entitled to vote thereon. For purposes of this Section, the affirmative vote or consent of an Exchange Director then in office shall be deemed to constitute the approval of the stockholder that elected such Exchange Director; provided, however, that if the Exchange Director announces prior to voting in favor of an amendment, or notes on a written consent of directors approving an amendment, that such Exchange Director's vote or consent does not constitute the action of such stockholder, then the amendment shall require the written approval of such stockholder of such Common Stock.

### Amendment of the Rules

SECTION 2. The Rules may be amended at any time by the Board of Directors; provided that any amendment of the introduction to Chapter X of the Rules, Rule 1002, Rule 1006, Rule 1009 and Rule 1010 shall require the affirmative vote of two-thirds of the directors then in office (but not less than a majority of the number of directors fixed by these By-Laws). Notwithstanding the foregoing, the first sentence of Rule 1006(e) may not be amended by action of the Board of Directors without the approval of the holders of all of the outstanding Common Stock of the Corporation entitled to vote thereon.

\* \* \*

**EXHIBIT 5B**



## OCC Rules

Underlined text indicates new text

~~Strikethrough~~ text indicates deleted text

Double underlined text indicates new text pending in SR-OCC-2017-020 and SR-OCC-2017-809

~~Double strikethrough~~ text indicates deleted text pending in SR-OCC-2017-020 and SR-OCC-2017-809

Double underlined text indicates new text reflecting conforming changes to the rule text pending in SR-OCC-2017-020 and SR-OCC-2017-809

~~Double strikethrough~~ text indicates deleted text reflecting conforming changes to the rule text pending in SR-OCC-2017-020 and SR-OCC-2017-809

The table below indicates where existing provisions are being relocated. In each instance, the rule text in this Exhibit 5B is marked to show any changes from the existing provision. The existing provision reference is indicated in strikethrough text for ease of reference. Thus, for example, if text from Rule XYZ(a) is being relocated to Rule ABC(d); rather than show the text as all strikethrough for Rule XYZ(a) and all underlined in Rule ABC(d), only the differences in the two provisions, if any, are marked with strikethrough or underline, as appropriate.

**Table A. Relocation from OCC By-Laws to OCC Rulebook**

<b>Existing Provision (Art. VIII, By-Laws)</b>	<b>New Provision (Rules)</b>
Sec. 1(a)	Introduction, Chapter X
Sec. 1(a)	1006(a)
Sec. 1(b)	1006(i)
Sec.2(a)	1002(d)
Sec. 2(b)	1002(e)
Sec. 3(a)	1002(a)
Sec. 3(a)(i)	1002(a)(i)
Sec. 3(a)(ii)	1002(a)(ii)
Sec. 3(b)	1002(a)(iii)
Sec. 3(c)	1002(b)
Sec. 3, Interpretation and Policy .01	1002, Interpretation and Policy .01
Sec. 3, Interpretation and Policy .02	1006(j)
Sec. 3, Interpretation and Policy .04	1002, Interpretation and Policy .03
Sec. 4	1002(c)
Sec. 5(a)	1006(b)
Sec. 5(b)	1006(c)
Sec. 5(c)	1006(d)
Sec. 5(d)	1006(e)
Sec. 5(e)	1006(f)
Sec. 5(f)	1006(g)
Sec. 5(g)	1006(g)
Sec. 5, Interpretation and Policy .01*	1006, Interpretation and Policy .01
Sec. 5, Interpretation and Policy .02*	1006, Interpretation and Policy .01
Sec. 5, Interpretation and Policy .03	1006, Interpretation and Policy .02
Sec. 5, Interpretation and Policy .04	1006, Interpretation and Policy .03
Sec. 5, Interpretation and Policy .05	1006, Interpretation and Policy .04
Sec. 5, Interpretation and Policy .06*	Rule 1006(f)
Sec. 6	1006(h)
Sec. 7	1009
Sec. 8	1010

*\* Changes to existing provisions indicated with an asterisk are marked as entirely new text to improve readability as these provisions have been consolidated in a manner that is not conducive to marking; however, the substance of the rule is intended to remain the same.*

**Table B. Relocation to Different Rule**

<b>Existing Rule</b>	<b>New Rule</b>
1001(b)	1003(a), (b)
1001(b), (c)	1003(b)(i)
1001(c)	1003(b)(i)
1001(d)	1003(b)(ii)
1001(d), (e)	1003, Interpretation and Policy .02
1001(e)	1003(b)(iii)
1001(e)	1003, Interpretation and Policy .03
1001(f)	1002(f)
1001, Interpretation and Policy .01	1001(b)
1001, Interpretation and Policy .04	1003, Interpretation and Policy .01
1003	1005(b)
1004	1008

## Chapter VI - Margins

\* \* \*

### RULE 601 - 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, firm non-lien account or segregated futures 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 created by large-scale Monte Carlo simulations that preserve both univariate and multivariate historical attributes of all included 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 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.

The Corporation's methodology for calculating margin requirements incorporates measures designed to ensure that margin requirements are not lower than those that would be calculated using volatility estimated over a historical look-back period of at least 10 years.

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) – (f) [no change]

***...Interpretations and Policies:***

.01 - .07 [no change]

\* \* \*

**RULE 609 - Intra-Day Margin**

The Corporation may require the deposit of such additional margin (“intra-day margin”) by any Clearing Member in any account at any time during any business day, as such officer deems advisable to reflect changes in (i) the market price during such day of any series of options held in a short position in such account or of any underlying interest underlying any cleared ~~security contract~~ (including an exercised option) in such account or of any Loaned Stock that is the subject of a stock loan or borrow position in such account, (ii) the size of such Clearing Member's positions in cleared ~~securities contracts~~ or stock loan or borrow positions, (iii) the value of securities deposited by the Clearing Member as margin, ~~or~~ (iv) the financial position of the Clearing Member, or otherwise to protect the Corporation, other Clearing Members or the general public, or (v) stress test exposures such that a Sufficiency Stress Test (as defined in Rule 1001(a)) identifies an exposure that exceeds 75% of the current Clearing Fund requirement less deficits. ~~Additionally,~~ the Corporation shall require the deposit of intra-day margin by a Clearing Member in the event that the Corporation, in its discretion, determines that the Clearing Member's reasonably anticipated settlement obligations to the Corporation would exceed the liquidity resources available to satisfy such settlement obligations. A Clearing Member shall satisfy a required deposit of intra-day margin in immediately available funds within the time prescribed by such officer or, in the absence thereof, within one hour of the Corporation's issuance of an instruction debiting the applicable bank account of the Clearing Member.

\* \* \*

**Chapter X - Clearing Fund Contributions**

**Introduction**

**SECTION 1.** ~~(a)~~ The Corporation shall maintain a Clearing Fund to which each Clearing Member shall contribute, ~~as provided in this Article VIII,~~ to make good certain losses suffered by the Corporation. As provided in this Chapter X, the size of the Clearing Fund shall at all times be subject to minimum sizing requirements and generally be calculated on a monthly basis by the Corporation; however, the calculated size of the Clearing Fund may be determined by the



Corporation more frequently than monthly under certain conditions specified herein.

**RULE 1001 - Size of Clearing Fund ~~and Amount of Contribution~~**

(a) Clearing Fund Size. The ~~total~~ size of the Clearing Fund shall be established ~~by the Corporation on a monthly basis~~ at an amount determined by the Corporation ~~(within the confidence levels selected by the Corporation) to be sufficient~~ to protect the Corporation against loss under simulated default scenarios that include the default of the single Clearing Member Group whose default would be likely to result in the largest draw against the Clearing Fund as well as an event involving the near simultaneous default of two randomly selected Clearing Member Groups as modeled using “Monte Carlo” simulations similar to those referred to in Rule 601(e). Such calculations shall be made on a daily basis, and the size of the Clearing Fund shall be readjusted monthly to equal the peak five-day rolling average of such calculations observed over the preceding three calendar months plus a prudential margin of safety determined by the Corporation, but may be increased intra-month in accordance with the Corporation’s ~~procedures~~ losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for the Corporation under stress test scenarios that represent extreme but plausible market conditions (“Sizing Stress Tests”). Such Sizing Stress Tests shall be supplemented by additional historical or hypothetical stress test scenarios (“Sufficiency Stress Tests”) and, in the event Sufficiency Stress Tests call for a larger Clearing Fund size, the Clearing Fund shall be re-sized based on such Sufficiency Stress Test pursuant to paragraph (c) of this Rule 1001. The size of the Clearing Fund for a given month shall not decrease by more than five percent from the prior month.

(b) through (e) relocated to Rule 1003

(f) relocated to Rule 1002(f)

~~(g) Notwithstanding the foregoing, in the event that the calculation pursuant to this Rule 1001 of the clearing fund contribution of a recently admitted Clearing Member results in an amount that is less than the amount determined under Article VIII of the By-Laws, the amount determined under Article VIII shall apply.~~

~~...Interpretations and Policies:~~

~~.01(b) Minimum Clearing Fund Size.~~ Notwithstanding ~~the foregoing provisions of paragraph (a) of this~~ Rule 1001, in no event shall the ~~total~~ size of the ~~C~~clearing ~~F~~fund be ~~set at~~ less than \$3 billion ~~plus~~ 110% of the size of the committed liquidity facilities of the Corporation ~~plus the Cash Clearing Fund Requirement (as defined in Rule 1002(a)) that are secured by the clearing fund on the date of the calculation.~~

~~.02~~ For purposes of determining the total size of the clearing fund, the Corporation shall not use confidence levels of less than 99%.

~~.03~~ The Corporation will phase in the weighting percentages that are identified in paragraph (b) by, not sooner than 180 calendar days from notice to Clearing Members, implementing temporary weighting percentages of 17.5% for total risk, 75% for open interest, and 7.5% for volume, and not sooner than 360 calendar days, measured from the same date of notice, implementing the weighting percentages that are prescribed in paragraph (b).

.04 relocated to Rule 1003, Interpretations and Policies .01

(c) Intra-Month Sizing Adjustments. If at any time between the regular monthly calculations of the size of the Clearing Fund a Sufficiency Stress Test identifies a breach that exceeds 90% of the size of the Clearing Fund requirement (less any margin collected as a result of a Sufficiency Stress Test breach pursuant to Rule 609), the calculated size of the Clearing Fund shall be increased by the greater of \$1 billion or 125% of the difference between the relevant exposure and the then-current Clearing Fund size.

(d) Temporary Increase to Clearing Fund Size. The Risk Committee, or the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon notice to the Risk Committee, shall have the authority to increase the size of the Clearing Fund at any time for the protection of the Corporation, Clearing Members or the general public. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in Clearing Fund size would (i) be based upon then-existing facts and circumstances, (ii) be in furtherance of the integrity of OCC and the stability of the financial system, and (iii) take into consideration the legitimate interests of Clearing Members and market participants. Any temporary increase in the Clearing Fund shall be reviewed by the Risk Committee as soon as practical and, if such temporary increase is still in effect, the Risk Committee shall determine whether (A) the increase in the cash Clearing Fund requirement is no longer required, or (B) OCC's rules should be modified to ensure that OCC continues to maintain sufficient prefunded financial resources.

## **RULE 1002 - Clearing Fund ~~Statement~~ Contributions**

~~Within ten days after the close of each calendar month, the Corporation shall make available to each Clearing Member a Clearing Fund Statement that shall list the current amount and form of such Clearing Member's contribution to the Clearing Fund and the amount of the contribution required of such Clearing Member for the current calendar month. Any surplus over and above the amount required for the current calendar month will also be shown.~~

~~SECTION 3.~~ (a) *Form and Method of Contributions.* Contributions to the Clearing Fund shall be in cash or in Government securities.

~~SECTION 3~~ (i) *Cash Clearing Fund Requirement.* Clearing Members shall collectively contribute \$3 billion in cash to the Clearing Fund ("Cash Clearing Fund Requirement"). Each Clearing Member's proportionate share of the Cash Clearing Fund Requirement shall be equal in percentage to its proportionate share of the Clearing Fund as determined

by Rule ~~1003(a)(y)-1001~~. The Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon providing notice to the Risk Committee, shall have the authority to temporarily increase the amount of cash required to be maintained in the Clearing Fund, up to an amount that includes the size of the Clearing Fund as determined in accordance with Rule 1001, for the protection of OCC, Clearing Members or the general public in accordance with the Corporation's policies and procedures. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in the Cash Clearing Fund Requirement size would (i) be based upon then-existing facts and circumstances, (ii) be in furtherance of the integrity of OCC and the stability of the financial system, and (iii) take into consideration the legitimate interests of Clearing Members and market participants. Any temporary increase in the ~~eCash Clearing Fund Requirement~~ shall be reviewed by the Risk Committee as soon as practical (but in any event, such review must occur within 20 calendar days of such increase) and, if such temporary increase is still in effect, the Risk Committee shall determine whether (A) the increase in the ~~eCash Clearing Fund Requirement~~ is no longer required, or (B) OCC's rules should be modified to ensure that OCC continues to maintain sufficient liquidity resources.

~~SECTION 3~~(ii) *Government Securities.* For purposes of valuing Government securities for calculating contributions to the Clearing Fund, Government securities shall be valued at (1) 99.5% of the current market value for maturities less than one year; (2) 98% of the current market value for maturities between one and five years; (3) 96.5% of the current market value for maturities between five and ten years; and (4) 95% of the current market value for maturities in excess of ten years. For the purposes of this ~~Section Rule~~, the current market value of Government securities shall be determined by the Corporation at such intervals as the Risk Committee shall from time to time prescribe, but not less often than monthly, on the basis of the quoted bid price therefor supplied by a source designated by the Corporation. Contributions of Government securities shall be deposited by the Clearing Member in an account of the Corporation in an approved custodian in the name of the Corporation or by such other method as the Corporation may from time to time approve.

~~SECTION 3(b)~~(iii) *Assets Denominated in a Foreign Currency.* Notwithstanding any other provision of this ~~Rule 1002-Section 3 of Article VIII~~, in determining the U.S. dollar amount of clearing fund credit to be given to any foreign currency or asset denominated in a foreign currency, the Corporation may use such exchange rates and apply such "haircuts" as it deems appropriate for its protection.

~~SECTION 3.(e)~~(b) *Interest or Gains on Government Securities.* Any interest or gain received or accrued on ~~such Government~~ securities included within a Clearing Fund contribution shall belong to the contributing Clearing Member, and any interest on, or proceeds from the maturity of, such securities received by the Corporation shall be credited by the Corporation to an account of the Clearing Member on the records of the Corporation.

~~SECTION 4.(a)-(c)~~ *Investment of Cash.* Cash contributions to the Clearing Fund may from time to time be partially or wholly invested by the Corporation for its account in Government securities, and to the extent that such contributions are not so invested they shall be deposited by the Corporation in a separate account or accounts for Clearing Fund contributions in approved custodians, provided that such account or accounts may commingle the Clearing Fund contributions of different Clearing Members. Interest earned on cash deposits held at a Federal Reserve Bank shall accrue to the benefit of Clearing Members (calculated daily based on each Clearing Member's pro rata share of Clearing Fund cash deposits), provided that each such Clearing Member has provided OCC with all tax documentation as OCC may from time to time require in order to effectuate such payment, and all other interest earned on investments will accrue to the benefit of the Corporation.

~~SECTION 2.(a)-(d)~~ *Initial Contribution.* The initial contribution of each Clearing Member to the Clearing Fund shall be ~~\$500,000~~~~\$150,000~~ or such greater amount as may be fixed by the Risk Committee in its discretion at the time such Clearing Member's membership application is approved. Notwithstanding anything else to the contrary herein, the initial Clearing Fund contribution of a Futures-Only Affiliated Clearing Member may be fixed by the Risk Committee to be the amount calculated pursuant to clause (y) of Rule ~~1001(b)-1003~~ if the conditions set forth in Rule ~~1001(f)-1002(f)~~ are satisfied. The amount of such initial contribution shall remain in force until such time as determined by the Risk Committee (but in any event not later than the end of the first three calendar months commencing after the Clearing Member's admission to membership), after which time the amount of the Clearing Member's required contribution to the Clearing Fund shall be determined in accordance with the Rules paragraph (e) of this Rule; provided, however, that such contribution shall at all times remain subject to the minimum contribution requirement under Rule 1003 and to adjustments by the Corporation under Rule 1004.

~~SECTION 2.(b)-(e)~~ *Deficits Due to Amendments.* ~~The formula for determining required Clearing Fund contributions may be altered from time to time by amendment of the Rules, but in no event shall the minimum required contribution to the Clearing Fund be less than \$150,000 except as provided in section 2(a) of this Article VIII with respect to a FuturesOnly Affiliated Clearing Member.~~ If the contribution to the Clearing Fund to be made by a Clearing Member is increased as a result of an amendment of the Rules, the increase shall not become effective until the Clearing Member is given five-two business days prior written notice of the amendment. Unless a Clearing Member notifies the Corporation in writing that it wishes to terminate its clearing membership and closes out or transfers all of its open long and short positions before the effective date of such amendment, such Clearing Member shall be liable to make the increased contribution by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the second business day following the day on which notice is provided by the Corporation.

~~RULE 1001-(f)~~ *Futures-Only Affiliated Clearing Members.* A Futures-Only Affiliated Clearing Member shall be exempt from contributing the amount set forth in clause (x) of ~~paragraph (b) of this Rule 1003(a)~~ if its contribution is equal to the amount specified in clause (y) of ~~paragraph (b)-Rule 1003(a)~~ and the then existing contribution of its earlier-admitted member affiliate Clearing Member is no less than the amount specified in clause (x) of ~~paragraph (b)-Rule 1003(a).~~

*... Interpretations and Policies:*

~~SECTION 3, Interpretations and Policies~~ **.01** The Corporation will not accept the delivery of a depository receipt from an approved custodian if the approved custodian, a parent, or an affiliate has an equity interest in the amount of 20% or more of the contributing Clearing Member's total capital.

~~.02~~ The ability of a Clearing Member to terminate its clearing membership under Rule 1002(e) shall be separate from the ability of a Clearing Member to terminate its status as such under Rule 1006(h), in each case subject to the conditions specified therein.

~~SECTION 3, Interpretations and Policies~~ ~~.04~~ **.03** For purposes of ~~paragraph (a)(i) of Section 3~~ Rule 1002(a)(i), a Clearing Member shall satisfy any increase in its required cash contribution pursuant to an increase in Cash Clearing Fund Requirement no later than one hour before the close of the Fedwire on the business day following the Corporation's issuance of an instruction to increase cash contributions.

**RULE 1003 - Clearing Fund Allocation Methodology**

~~RULE 1001(b)(a) Allocated Contribution. Except as otherwise provided under paragraph (g) or as modified in accordance with paragraph (f) of this Rule, Unless determined pursuant to Rule 1002(d) or (f), the contribution to the Clearing Fund of each Clearing Member for each calendar month shall be the sum of (x) \$150,000-\$500,000 (such amount being the "fixed amount") and a separate amount equal to (y) such Clearing Member's proportionate share of an amount sufficient to cause the total amount of the Clearing Fund (after taking into account each Clearing Member's fixed amount) to be equal to the amount-Clearing Fund size determined pursuant to paragraph (a) of this Rule 1001(a) (such amount being the "variable amount"). In no event shall the contribution of a Clearing Member be less than the fixed amount. A Clearing Member's contribution shall at all times be subject to separate and additional adjustments by the Corporation pursuant to Rule 1004. A Clearing Member's proportionate share of the variable amount set forth in clause (y) of the preceding sentence shall be equal to a weighted average of the Clearing Member's proportionate share of total risk, open interest and volume, in all accounts (including paired X-M accounts) of the Clearing Member, as calculated in accordance with this Rule 1003 and the Corporation's policies and procedures.~~

(b) A Clearing Member's proportionate share of the variable amount of its Clearing Fund contribution shall be equal to a weighted average of the Clearing Member's proportionate share of total risk, open interest and volume. In calculating this average, total risk shall have a weighting of 35%-70%, open interest shall have a weighting of 50%-15%, and volume shall have a weighting of 15%.

(i) Total Risk. For purposes of this Rule ~~1001~~ 1003, "total risk" means the margin requirement calculated and reported by the Corporation with respect to all accounts of a Clearing Member ~~exclusive of less~~ the net asset value of the positions in such accounts aggregated across all such accounts. ~~RULE 1001(e)~~ A Clearing Member's proportionate share of total risk shall be equal to a fraction, the numerator of which shall be the daily

average of the total risk applicable to all accounts of such Clearing Member for the preceding calendar month, and the denominator of which shall be the daily average of the total risk applicable to all accounts of all Clearing Members for the preceding calendar month.

~~RULE 1001(d)-(ii) *Open Interest.*~~ A Clearing Member's proportionate share of open interest shall be equal to a fraction, the numerator of which shall be the daily average number of open positions in cleared contracts ~~(with the number of OTC options contracts adjusted as needed to ensure that the number of such OTC options contracts, as adjusted, is approximately equal to the number of option contracts other than OTC option contracts that would cover the same notional value or units of the same underlying interest)~~ plus cleared-contract equivalent units attributable to open stock loan and borrow positions held by such Clearing Member with the Corporation and the denominator of which shall be the daily average number of open positions in cleared contracts (adjusted in the same manner as in the numerator) plus cleared-contract equivalent units attributable to open stock loan and borrow positions held by all Clearing Members during the preceding calendar month. The numerator and denominator shall each include the average daily number of contracts held in paired X-M accounts.

~~RULE 1001(e)-(iii) *Volume.*~~ A Clearing Member's proportionate share of volume shall be equal to a fraction, the numerator of which shall be the daily average number of all cleared ~~(or executed in the case of an Execution Only Clearing Member)~~ contracts ~~(with the number of OTC options contracts adjusted as needed to ensure that the number of such OTC options contracts, as adjusted, is approximately equal to the number of option contracts other than OTC option contracts that would cover the same notional value or units of the same underlying interest)~~ and cleared-contract equivalent units attributable to stock loan and borrow positions cleared by such Clearing Member during ~~the preceding calendar month~~ a look-back period determined by the Corporation from time to time and the denominator of which shall be the daily average number of all cleared ~~(or executed in the case of an Execution Only Clearing Member)~~ contracts (adjusted in the same manner as in the numerator) and cleared-contract equivalent units attributable to stock loan and borrow positions cleared by all Clearing Members during the preceding ~~calendar~~ month. The numerator and denominator shall each include the average daily number of contracts cleared in paired X-M accounts.

*... Interpretations and Policies:*

~~RULE 1001, *Interpretations and Policies .04 .01*~~ Cleared contract equivalent units attributable to a stock loan and borrow position for purposes of the calculations in ~~paragraphs (d) and (e)~~ Rule 1003(b)(ii) and (iii) will be calculated by dividing the number of shares of Eligible Stock underlying such position by a divisor that the Corporation determines, in its sole discretion, to be fair to the affected Clearing Members.

~~RULE 1001(d) .02~~ For purposes of Rule 1003(b)(ii) and (iii), the numerator and denominator of the relevant fractions shall include OTC options contracts and A Clearing Member's proportionate share of open interest shall be equal to a fraction, the numerator of which shall be



~~the daily average number of open positions in cleared contracts (with the number of such OTC options contracts shall be adjusted as needed to ensure that the number of such OTC options contracts, as adjusted, is approximately equal to the number of options contracts other than OTC options contracts that would cover the same notional value or units of the same underlying interest) plus cleared contract equivalent units attributable to open stock loan and borrow positions held by such Clearing Member with the Corporation and the denominator of which shall be the daily average number of open positions in cleared contracts (adjusted in the same manner as in the numerator) plus cleared contract equivalent units attributable to open stock loan and borrow positions held by all Clearing Members during the preceding calendar month. The numerator and denominator shall each include the average daily number of contracts held in paired X-M accounts.~~

~~.03 The allocation methodology in this Rule 1003 shall be phased in over a three month period after implementation by adjusting 35% of the weighting to total risk from open interest by 10% in the first month, 10% in the second month, and 15% in the third month.~~

#### **RULE 1004 - Adjustments to Clearing Fund Contributions**

~~*Adjusted Contribution.* The required Clearing Fund contribution of a Clearing Member may be adjusted by the Corporation due to mergers, consolidations, position transfers, business expansions, membership approval or other similar events in connection with the calculations made in respect of a particular calendar month or at any other time. The Corporation shall provide notice to affected Clearing Members, by means of the reports described in Rule 1007, as soon as practicable after any such adjustment is determined. Any deficit resulting from the adjusted contribution shall be satisfied by the Clearing Member as provided in Rule 1005(a); provided, however that a deficit that would otherwise be required to be satisfied on the first business day of a calendar month may be satisfied on the second business day if the deficit coincides with a deficit due to regular monthly sizing of the Clearing Fund as provided for in Rule 1005(b). All individual adjustments as of a particular date, taken together, may result in a corresponding increase in the amount of the Clearing Fund but shall not be deemed to be a change in the calculated Clearing Fund size as that may be determined under Rule 1001. Any adjusted contribution resulting from any adjustment shall be in effect until the earlier of the next adjustment of the calculated size of the Clearing Fund under Rule 1001, or the next adjustment of the Clearing Member's required contribution pursuant to this paragraph.~~

#### **RULE 1005 - Deficits and Increased Contributions**

##### **RULE 1003—Time of Deposits**

~~(a) *Deficits Generally.* Except as otherwise provided in this Chapter X, including but not limited to paragraph (b) below and Rule 1002(e), or as the Corporation may otherwise agree from time to time in writing, whenever a report for a Clearing Member described in Rule 1007 shows a deficit, including but not limited to a deficit caused by a decrease in the value of the Clearing Member's contribution or an adjusted contribution pursuant to Rule 1004, such~~

Clearing Member shall satisfy the deficit by a deposit in a form approved by the Corporation no later than one hour after being notified by the Corporation of such deficit.

(b) Deficits Due to Intra-Month and Regular Monthly Sizing. Whenever a Clearing Member's Clearing Fund Statement shows a deficit, Whenever a report described in Rule 1007 is made available in connection with regular monthly or intra-month determination of the calculated size of the Clearing Fund under Rule 1001 and the report shows a deficit for any Clearing Member, such Clearing Member shall satisfy the deficit by a deposit in a form approved by the By-Laws within five business days of the date of issuance of such Clearing Fund Statement Corporation by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the second business day following the day on which notice is provided by the Corporation.

(c) Debit Authority of the Corporation. Whenever a Clearing Member fails to timely satisfy any deficit shown on a report as described in Rule 1007, including but not limited to a deficit caused by the sizing determination pursuant to Rule 1001, a making good of a proportionate charge pursuant to Rule 1006(h), or a deficit caused for any other reason, the Corporation shall be authorized to withdraw from the Clearing Member's bank account established in respect of any firm account, at a time specified by the Corporation (which in the case of a deficit resulting from the regular monthly determination of the calculated size of the Clearing Fund may be different from the time specified in connection with deficits caused for other reasons), an amount equal to such deficit, and any amount withdrawn by the Corporation will be treated as a cash contribution to the Clearing Fund. If the Corporation is unable to withdraw an amount equal to the deficit, any such failure may subject the Clearing Member to suspension and disciplinary proceedings as provided for in the By-Laws and Rules, including under Chapters XI and XII.

### **RULE 1006 - Purpose and Use of Clearing Fund**

SECTION 1.(a)-(a) Conditions for Clearing Fund Use. The Corporation shall maintain a Clearing Fund to which each Clearing Member shall contribute, as provided in this Article VIII, may be used to make good losses or expenses suffered by the Corporation, or losses suffered by the Clearing Fund resulting from borrowings pursuant to the authority in Section 5(e) of this Article Rule 1006(f), (i) as a result of the failure of any Clearing Member to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) as a result of the failure of any Clearing Member (including any Appointed Clearing Member) or of CDS to perform its obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or matured future or any other contract or obligation issued, undertaken, or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) as a result of the failure of any Clearing Member to perform any of its obligations to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) in connection with any liquidation of a Clearing Member's open positions, (v) in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, (vi) as a result of the failure of any Clearing Member to make any other required payment or render any other required performance, (vii) as a result of the failure of any bank or securities or commodities clearing organization to perform its obligations to the Corporation for reasons specified in Section 5 of this Article paragraph (c) of this Rule 1006, or (viii) as a result of a borrowing by the Corporation for liquidity needs for same



day settlement pursuant to the authority in ~~Section 5(e) of this Article~~Rule 1006(f).  
Notwithstanding the foregoing, in the event that the Corporation performs a Voluntary Tear-Up or a Partial Tear-Up pursuant to Rule 1111, the Clearing Fund may be used to provide compensation to non-defaulting Clearing Members and their customers as a means of re-allocating the losses, costs and fees imposed upon them as a result of such Voluntary Tear-Up or Partial Tear-Up, but only to the extent that such losses, costs and fees can be reasonably determined by the Corporation.

~~SECTION 5.(a)(b) Clearing Member Failures. If (i) any Clearing Member shall fail to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) any Clearing Member, (including any Appointed Clearing Member) or of CDS shall fail to perform any obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or any other contract or obligation issued or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) any Clearing Member shall fail to perform any obligation to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) the Corporation shall suffer any loss or expense upon any liquidation of a Clearing Member's open positions, (v) the Corporation shall suffer any loss or expense in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, or (vi) any Clearing Member shall fail to make any other payment or render any other performance required under the By Laws or the Rules, then Upon occurrence of any of the events described in clauses (i) through (vi) of paragraph (a) of this Rule, the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund contribution to the discharge of ~~such~~the obligation, the reimbursement of such loss or expense, or the making of such payment or the funding of ~~such~~the performance, as applicable. If the sum of all such obligations, losses or expenses, and payments exceeds the sum of the amount of the Clearing Member's total Clearing Fund contribution and the amount of the other funds of the Clearing Member available to the Corporation, and if the Clearing Member fails to pay the Corporation the amount of any such deficiency on demand, the amount of the deficiency shall be paid out of the Clearing Fund and charged on a proportionate basis against all other Clearing Members' required contributions as fixed-calculated at the time, but the Clearing Member who failed to pay the deficiency shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.~~

~~¶~~

~~(vii)~~If the Corporation performs a Voluntary Tear-Up or a Partial Tear-Up pursuant to Rule 1111, then, the Corporation may elect to proportionately charge the Clearing Fund in the amount(s) the Corporation reasonably determines necessary to compensate non-defaulting Clearing Members and their customers for the losses, costs or fees imposed upon them as a directly result of such Voluntary Tear-Up or Partial Tear-Up, but only to the extent that such losses, costs and fees can be reasonably determined by the Corporation.

For purposes of this Rule 1006(b), a Clearing Member's proportionate share of any loss to be charged against such Clearing Member's contribution to the Clearing Fund shall be determined in accordance with the formula prescribed in Interpretation and Policy .01 below.

SECTION 5.(b)-(c) Bank or Clearing Organization. (i) If any bank or securities or commodities clearing organization shall fail to perform any obligation to the Corporation when due because of its bankruptcy, insolvency, receivership, suspension of operations, or ~~because of~~ any similar event, and the Corporation shall sustain a loss (whether directly or as a trustee, custodian, or secured party) by reason thereof that is not recoverable out of the Clearing Fund pursuant to paragraph (ab), the Corporation may, in its discretion, reimburse itself for such loss out of the Clearing Fund pursuant to this paragraph ~~(c)-(b)(i)~~, and the amount of any such reimbursement shall be charged proportionately against all Clearing Members' ~~computed~~required contributions to the Clearing Fund as ~~fixed~~calculated at the time.

(ii) With respect to any borrowing by the Corporation for liquidity needs for same day settlement pursuant to the authority in paragraph (e) of this Section 5Rule, if such borrowing remains outstanding for a period of less than thirty days, the Corporation may, in its discretion, consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' ~~computed~~required contributions to the Clearing Fund as ~~fixed~~calculated at the time, provided however, that if such borrowing remains outstanding on the thirtieth day, the Corporation shall consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' ~~computed~~required contributions to the Clearing Fund as ~~fixed~~calculated at the time.

For purposes of this Rule 1006(c), a Clearing Member's proportionate share of any loss to be charged against such Clearing Member's contribution to the Clearing Fund shall be determined in accordance with the formula prescribed in Interpretation and Policy .01 below. To the extent that a loss resulting from any of the events referred to in this paragraph ~~(b)~~ is recoverable out of the Clearing Fund pursuant to paragraph (ab), the provisions of paragraph (ab) shall control, and this paragraph ~~(bc)~~ shall be inapplicable.

SECTION 5.(e)-(d) Notice of Charges. Whenever any proportionate charge is made against Clearing Members' ~~computed~~ contributions to the Clearing Fund, the Corporation shall promptly notify all Clearing Members of the amount of the charge and the reasons therefor. For the purposes of paragraphs (ab) through (ed), the amount of any loss sustained by the Corporation shall be determined without reference to the possibility of any subsequent recovery in respect thereof, through insolvency proceedings or otherwise, but the net amount of any such recovery shall be applied in accordance with Section 8 of this Article paragraph (h).

SECTION 5.(d)-(e) Retained Earnings. Notwithstanding the provisions of paragraphs (ab) through (ed), in lieu of charging a loss or deficiency proportionately to the Clearing Fund ~~computed~~required contributions of non-defaulting Clearing Members pursuant thereto, the Corporation may, in its discretion, subject to the unanimous approval of the holders of Class A Common Stock and Class B Common Stock, elect to charge such loss or deficiency in whole or in part against the Corporation's current earnings or retained earnings. If such charge is made against current earnings, such charge shall be deemed a refund of clearing fees to the non-defaulting Clearing Members to whose Clearing Fund contributions the loss or deficiency would otherwise have been charged, and in that case the Corporation shall notify each such Clearing

Member of the aggregate amount of the charge against current earnings, the reasons therefor, and the amount deemed to have been refunded to such Clearing Member. As used herein, the term “current earnings” shall mean the Corporation's net income before taxes for the period from the beginning of the fiscal year in which a loss or deficiency occurs to the close of the calendar month immediately preceding the occurrence of such loss or deficiency, less an amount equal to the aggregate of all refunds of clearing fees made or authorized to be made or deemed to have been made for such fiscal year. If the Corporation elects to charge a deficiency in a Clearing Member's Clearing Fund contribution ~~to~~ against the Corporation's current earnings or retained earnings, the Clearing Member shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.

~~SECTION 5.(e)-(f) Borrowings.~~ If (i) the Corporation deems it necessary or advisable to borrow or otherwise obtain funds from third parties in order to meet obligations arising out of the default or suspension, ~~or in anticipation of the potential default or suspension,~~ of a Clearing Member or any action taken by the Corporation in connection therewith pursuant to Chapter XI of the Rules or otherwise; or (ii) the Corporation sustains a loss reimbursable out of the Clearing Fund pursuant to paragraph (bc) but elects to borrow or otherwise obtain funds from third parties in lieu of immediately charging such loss to the Clearing Fund; or (iii) the Corporation reasonably believes it necessary to borrow to meet its liquidity needs for same-day settlement as a result of the failure of any bank or securities or commodities clearing organization to achieve daily settlement, and in any case the Corporation determines that it will be unable to borrow or otherwise obtain such funds on acceptable terms on an unsecured basis; then the Corporation may take possession of cash or securities deposited by Clearing Members as contributions to the Clearing Fund and securities in which cash contributions to the Clearing Fund have been invested by the Corporation and use such assets to borrow or otherwise obtain funds through any means determined to be reasonable by the Executive Chairman, Chief Operating Officer or the Chief Administrative Officer of the Corporation in his discretion (including, without limitation, pledging such assets as security for loans and/or using such assets to effect repurchase, securities lending or other transactions); provided, in the case of any transaction effected under the circumstances specified in clause (i) or clause (iii) above, that the funds obtained through such transaction will be used solely for the purposes described in clause (i) or clause (iii), as applicable. The funds obtained by the Corporation pursuant to this paragraph (ef), irrespective of how such funds are applied, shall not be deemed to be charges against the Clearing Fund for a period not to exceed thirty days, and, during said period, shall not affect the amount or timing of any charges otherwise required to be made against the Clearing Fund pursuant to this ~~Section~~Chapter X. If all or a part of any transaction effected by the Corporation pursuant to this paragraph (ef) remains outstanding after thirty days, the Corporation, at the close of business of the thirtieth day (or on the first Business Day thereafter), shall consider the amount of Clearing Fund assets used to support the Corporation's obligations under the outstanding transaction as an actual loss to the Clearing Fund and immediately allocate such loss in accordance with this ~~Section~~Chapter X.

~~SECTION 5.(f)-(g) Cross Guaranty Parties.~~ If the Corporation is obligated to make a payment to a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of a suspended Clearing Member, the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund

contribution to make such payment, or to reimburse itself for such payment. ~~SECTION 5.(g)~~ If the Corporation receives any funds in respect of a suspended Clearing Member from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in circumstances in which the Corporation must still make a charge on a proportionate basis against other Clearing Members' ~~computed~~required contributions to the Clearing Fund even after application of such funds, or in circumstances in which the Corporation has already made a charge on a proportionate basis against other Clearing Members' ~~computed~~required contributions to the Clearing Fund, such funds shall be credited to the Clearing Fund.

~~SECTION 6.(h)~~ *Making Good of Charges to the Clearing Fund.*

(A) Replenishment. Whenever an amount is paid out of the Clearing Fund contribution of a Clearing Member, whether by proportionate charge or otherwise, such Clearing Member shall be liable to promptly ~~to make good~~ the deficiency in its required contribution resulting from such payment by replenishment of the Clearing Fund. ~~Notwithstanding the foregoing and except as provided for below, if the payment is made as a result of a proportionate charge, a Clearing Member will not be liable to make good more than an additional 100% of the amount of its then required contribution if (i) within five business days following such proportionate charge the Clearing Member notifies the Corporation in writing that it is terminating its status as a Clearing Member, (ii) no opening purchase transaction or opening writing transaction is submitted for clearance through any of the Clearing Member's accounts and (if the Clearing Member is a Market Loan Clearing Member or a Hedge Clearing Member) no Stock Loan is initiated through any of the Clearing Member's accounts after the giving of such notice, and (iii) the Clearing Member closes out or transfers all of its open positions with the Corporation, in each case as promptly as practicable after the giving of such notice; provided that a Clearing Member which so terminates its status as a Clearing Member shall be ineligible to be readmitted to such membership unless the Clearing Member agrees to such reimbursement of the persons who were Clearing Members at the time of such termination as the Board of Directors deems fair and equitable in the circumstances. In the event a Clearing Member notifies the Corporation of its intent to terminate its status as a Clearing Member in accordance with the preceding sentence, and such Clearing Member's computed contribution is less than its minimum required contribution, then the Clearing Member shall also make good 100% of the amount equal to its minimum required contribution less its computed contribution to the Clearing Fund.~~ Each Clearing Member shall have and shall at all times maintain the ability to ~~make good~~replenish any deficiency described in this ~~Section 6~~Rule 1006(h) by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the first business day following the day on which the Corporation notifies the Clearing Member of such deficiency.

(B) ~~(b)~~ Cooling-Off Period; Assessments. Notwithstanding anything in ~~Section 6~~this Rule 1006(h) and except as provided for below, if an amount is paid out of the Clearing Fund as a result of a proportionate charge under Rule 1006(b) resulting from any of the events described in clauses (i) through (iv) of ~~Section 5(a)~~Rule 1006(a), then starting on the date of such proportionate charge there shall automatically commence a cooling-off period during which a Clearing Member will not be liable to make good more than an additional 200% of the amount of its then required contribution (for definitional purposes, amounts in excess of a

Clearing Member's then required contribution shall be "assessments"). The cooling-off period shall be fifteen consecutive calendar days from the date of such proportionate charge; provided however, that if one or more subsequent events described in clauses (i) through (iv) of ~~Section 5(a)~~Rule 1006(a) occur during the fifteen-day period and result in one or more proportionate charges against the Clearing Fund, the cooling-off period shall be extended through (i) the fifteenth calendar day from the date of the most recent proportionate charge resulting from the subsequent event, or (ii) the twentieth calendar day from the date of the initial proportionate charge, whichever is sooner. After the cooling-off period ends, Clearing Members shall not be liable for any deficiency arising from losses or expenses suffered by the Corporation as a result of any event described in clauses (i) through (iv) of ~~Section 5(a)~~Rule 1006(a) that occurred during the cooling-off period. Each Clearing Member shall have and shall at all times maintain the ability to make good any deficiency described in this ~~Section 6(b)~~Rule 1006(h) by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the first business day following the day on which the Corporation notifies the Clearing Member of such deficiency.

~~(C)(e)~~ Termination During Cooling-Off Period. After the expiration of the cooling-off period, a Clearing Member will not be liable for replenishment of the Clearing Fund as required by ~~Section 6(a)~~paragraph (A) of this Rule 1006(h) or assessments as contemplated by ~~Section 6(b)~~paragraph (B) of this Rule 1006(h), if (i) not later than the last day of the cooling-off period the Clearing Member notifies the Secretary of the Corporation in writing that it is terminating its status as a Clearing Member, (ii) after giving such notice no opening purchase transaction or opening writing transaction is submitted for clearance through any of the Clearing Member's accounts and (if the Clearing Member is a Market Loan Clearing Member or a Hedge Clearing Member) no Stock Loan is initiated through any of the Clearing Member's accounts after the giving of such notice, and (iii) the Clearing Member closes out or transfers all of its open positions with the Corporation, in each case not later than the last day of the cooling off period. A Clearing Member that so terminates its status as a Clearing Member shall be ineligible to be readmitted to such membership unless the Clearing Member agrees to such reimbursement of the persons who were Clearing Members at the time of such termination as the Board of Directors deems fair and equitable in the circumstances. In the event a Clearing Member notifies the Corporation of its intent to terminate its status as a Clearing Member in accordance with ~~this Section 6(e)~~paragraph (C) of this Rule 1006(h), and such Clearing Member's computed contribution is less than its minimum required contribution, then the Clearing Member shall also make good 100% of the amount equal to its minimum required contribution less its computed contribution to the Clearing Fund.

**~~SECTION 1.(b)~~(i) General Lien.** Without limiting any other rights granted herein, each Clearing Member grants to the Corporation a general lien on all cash, Government securities and other property of the Clearing Member contributed to the Clearing Fund (and any proceeds thereof) as security for any obligation of the Clearing Member to the Corporation including, without limitation, any obligation to satisfy a proportionate charge pursuant to ~~Section 5 of this Article VIII~~this Rule 1006.

**~~SECTION 3, Interpretations and Policies .02-~~(j) Securities Intermediary.** Securities deposited



in an account of the Corporation in an approved custodian in the name of the Corporation shall be credited to the Clearing Member's "clearing fund account," which shall be a securities account maintained on the records of the Corporation in the name of such Clearing Member, and the Corporation shall be the Clearing Member's securities intermediary with respect to such securities for purposes of Articles 8 and 9 of the Uniform Commercial Code. So long as any such securities and any proceeds thereof are so credited to the Clearing Member's clearing fund account, the Corporation shall have a general lien on and perfected security interest in and "control" over such securities and proceeds for purposes of Articles 8 and 9 of the Uniform Commercial Code.

**... Interpretations & Policies:**

**.01** For purposes of paragraphs (b) and (c) of this Rule 1006, the share of any deficiency to be borne by each Clearing Member (other than the suspended Clearing Member(s)) shall be a fraction, the numerator of which shall be the sum of the fixed amount and variable amount calculated pursuant to Rule 1003 for such Clearing Member (or its initial contribution if applicable) and the denominator of which shall be the sum of the fixed amounts, variable amounts and any initial contributions across all Clearing Members (other than the suspended Clearing Member(s)).

**SECTION 5, Interpretations and Policies .03.02** If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contributions of the Clearing Member), and the Clearing Member is a Common Member but the Corporation cannot, in its discretion, determine whether or in what amount it will be entitled to receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, or when it will receive such funds, the Corporation may, in its discretion, make a charge against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (ab). If the Corporation receives funds from a Cross-Guaranty Party in respect of the Clearing Member after making such a charge, the Corporation will ~~allocate~~credit such funds to the Clearing Fund in accordance with the provisions of ~~paragraph (g)~~Rule 1010.

**SECTION 5, Interpretations and Policies .04.03** If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contribution of the Clearing Member), and the Clearing Member is a Common Member and the Corporation determines in its discretion that it is likely to receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, the Corporation may, in its discretion and in anticipation of receipt of such funds from the Cross-Guaranty Party, forego making a charge, or make a reduced charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (ab). If the Corporation thereafter does not receive or determines that it is not likely to receive the anticipated funds from the Cross-Guaranty Party, or receives funds in a smaller amount than anticipated, the Corporation may, in its discretion, make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (ab).

~~SECTION 5, Interpretations and Policies .05 .04~~ If the Corporation receives funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of a suspended Clearing Member, and is thereafter required for any reason whatsoever to refund such funds to the Cross-Guaranty Party, the Corporation may, in its discretion, make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph ~~(ab)~~ (based on the other Clearing Members' ~~computed~~ contributions as fixed at the time of the refund), to make itself whole for the funds refunded to the Cross-Guaranty Party.

#### **RULE 1007 – Reports**

At least once each business day, the Corporation shall make available to each Clearing Member certain reports listing the current amount and form of such Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member, including the Clearing Member's required cash contribution to the Clearing Fund, and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. The Corporation shall also issue a report whenever the calculated size of the Clearing Fund has changed, whether as the result of regular monthly sizing of the Clearing Fund or otherwise.

#### **RULE ~~1004~~1008 – Withdrawals of Excess Clearing Fund**

In the event that the Clearing Fund ~~Statement report~~ of a Clearing Member shows a surplus, such surplus may be withdrawn by the Clearing Member ~~on the business day following issuance of the Statement~~ by submitting a Clearing Fund withdrawal request to the Corporation in such form as the Corporation shall prescribe. Thereupon, the Corporation shall authorize withdrawal of the excess contribution.

#### **RULE 1009 – Contribution Refunds**

~~SECTION 7.~~ Whenever a Clearing Member definitively ceases to be such, the amount of its contribution to the Clearing Fund shall be returned to it, but not until all confirmed trades and open positions of the Clearing Member from which losses or payments chargeable to the Clearing Fund might result have been fulfilled or closed, or, with the approval of the Corporation, another Clearing Member has been substituted thereon. All amounts chargeable against a Clearing Member's contribution to the Clearing Fund on account of transactions that occurred while it was a Clearing Member, including proportionate charges and unpaid fees, shall be deducted from the amount returned. For purposes of this ~~Section 7~~Rule 1009, a Clearing Member will be deemed to have definitively ceased to be a Clearing Member at such time as it has fulfilled all requirements of Sub-~~S~~sections (i) through (iii) of ~~Section 6 of this Article~~Rule 1006(h) and has met all outstanding obligations to the Corporation.

#### **RULE 1010 – Recovery of Losses**

~~SECTION 8.~~ If a loss charged proportionately against the contributions of Clearing Members is afterward recovered by the Corporation, in whole or in part, the net amount of such recovery shall be paid to the Clearing Members against whose contributions the loss was charged in proportion to the amounts charged against their respective contributions, whether or not they are still Clearing Members.

\* \* \*

## Chapter XI - Suspension of a Clearing Member

\* \* \*

### RULE 1106 - Open Positions

(a) – (d) [No change]

(e) *Exceptions.*

(1) – (2) [No change]

(A) – (B) [No change]

(C) If the liquidation of the suspended Clearing Member's business with the Corporation pursuant to this Chapter XI results in a deficiency that would result in a proportionate charge against the Clearing Fund contributions of all other Clearing Members pursuant to ~~Article VIII, Section 5 of the By-Laws Rule 1006~~, then each Participant that failed to purchase or assume a percentage of the auction portfolio at least equal to its minimum participation level shall be subject to a priority charge ("Priority Charge") against such Participant's Clearing Fund contribution. The amount of the Priority Charge shall be determined in accordance with a formula set forth in the OTC Options Auction Procedures; provided that the Priority Charge shall not exceed the amount of the Clearing Member's required Clearing Fund contribution at the time the Priority Charge is made. If a deficiency remains after application of such Priority Charges, the Corporation shall then make a proportionate charge against the Clearing Fund contributions of all Clearing Members, including Participants, pursuant to ~~Article VIII, Section 5 of the By-Laws Rule 1006~~; provided, however, that if a Participant notifies the Corporation within the specified time following such proportionate charge that it will terminate its status as a Clearing Member as permitted, and in satisfaction of the conditions imposed, under ~~Article VIII, Section 6 of the By-Laws Rule 1006(h)~~, then the amount of any Priority Charge to which such Participant was subject shall be treated as if it had been a part of the proportionate charge and shall not be construed to increase the maximum liability of the Participant to make additional contributions to the Clearing Fund pursuant to ~~such Section 6 Rule 1006(h)~~.

\* \* \*



Required fields are shown with yellow backgrounds and asterisks.

Filing by Options Clearing Corporation  
 Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial * <input type="checkbox"/>	Amendment * <input checked="" type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input checked="" type="checkbox"/>	Section 19(b)(3)(A) * <input type="checkbox"/>	Section 19(b)(3)(B) * <input type="checkbox"/>
Pilot <input type="checkbox"/>			Rule		
Extension of Time Period for Commission Action * <input type="checkbox"/>		Date Expires * <input type="text"/>	<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)	
			<input type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)	
			<input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(6)	

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010	Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 806(e)(1) * <input type="checkbox"/>	Section 806(e)(2) * <input type="checkbox"/>
	Section 3C(b)(2) * <input type="checkbox"/>

Exhibit 2 Sent As Paper Document <input type="checkbox"/>	Exhibit 3 Sent As Paper Document <input type="checkbox"/>
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**Description**

Provide a brief description of the action (limit 250 characters, required when Initial is checked \*).

**Contact Information**

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name \* Justin      Last Name \* Byrne

Title \* Vice President, Regulatory Filings

E-mail \* jbyrne@theocc.com

Telephone \* (202) 971-7238      Fax (312) 322-6280

**Signature**

Pursuant to the requirements of the Securities Exchange Act of 1934,

has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

(Title \*)

Date 06/07/2018      Vice President, Regulatory Filings

By Justin W. Byrne      Justin W. Byrne

(Name \*)

NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

Justin Byrne, jbyrne@theocc.com

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFF website.

**Form 19b-4 Information \***

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications**

Add Remove View

Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire**

Add Remove View

Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies**

Add Remove View

The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

Add Remove View

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment**

Add Remove View

If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

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

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Form 19b-4

Proposed Rule Change

by

**THE OPTIONS CLEARING CORPORATION**

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

**Partial Amendment No. 1 to SR-OCC-2018-008**

The Options Clearing Corporation (“OCC”) is filing this partial amendment (“Amendment No. 1”) to SR-OCC-2018-008, which was filed with the Securities and Exchange Commission on May 30, 2018 (“Initial Filing”).

This Amendment No. 1 would correct file formatting errors in Exhibits 5A and 5B to the Initial Filing (pages 289-322) and is intended to replace Exhibits 5A and 5B in their entirety. The amendment would not modify the substance of the proposed rule text in Exhibits 5A and 5B to the Initial Filing.

The partial amendment would not change the purpose or statutory basis for the proposed rule change. All other representations in the Initial Filing remain as stated therein and no other changes are being made.

**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: \_\_\_\_\_  
**Justin W. Byrne**  
**Vice President, Regulatory Filings**

**EXHIBIT 5A**



**By-Laws**

Underlined text indicates new text

~~Strikethrough~~ text indicates deleted text

## Article I - Definitions

\* \* \*

SECTION 1. Unless the context requires otherwise (or except as otherwise specified in the By-Laws or Rules), the terms defined herein shall, for all purposes of these By-Laws and the Rules of the Corporation, have the meanings herein specified.

A. - B. [No change]

C.

(1) – (12) [No change]

### Clearing Fund

(14) The term "Clearing Fund" means the fund established pursuant to ~~Article VIII of the By-Laws~~Chapter X of the Rules.

(14) – (39) [No change]

D. – Z. [No change]

\* \* \*

## Article V - Clearing Members

\* \* \*

### Conditions to Admission

SECTION 3. No applicant shall be admitted as a Clearing Member until the applicant has deposited with the Corporation its initial contribution to the Clearing Fund in the amount required by ~~Article VIII of the By-Laws~~Chapter X of the Rules and has signed and delivered to the Corporation an agreement in such form as the Corporation shall require, including applicant's agreements (a) to clear through the Corporation, either directly or through another Clearing Member, all of its confirmed trades and all other transactions which the By-Laws or the Rules may require to be cleared through the Corporation, (b) to abide by all provisions of the By-Laws and the Rules and by all procedures adopted pursuant thereto, (c) that the By-Laws and the Rules shall be a part of the terms and conditions of every confirmed trade or other contract or transaction which the applicant, while a Clearing Member, may make or have with the Corporation, or with other Clearing Members in respect of cleared contracts, or which may be cleared or required to be cleared through the Corporation, (d) to grant the Corporation all liens, rights and remedies set forth in the By-Laws and the Rules, (e) to pay to the Corporation all fees and other compensation provided by or pursuant to the By-Laws and the Rules for clearance and

for all other services rendered by the Corporation to the applicant while a Clearing Member, (f) to pay such fines as may be imposed on it in accordance with the By-Laws and the Rules, (g) to permit inspection of its books and records at all times by the representatives of the Corporation and to furnish the Corporation with all information in respect of the applicant's business and transactions as the Corporation or its officers may require, (h) to make such payments to or in respect of the Clearing Fund as may be required from time to time, (i) to comply, in the case of Non-U.S. Securities Firms, with the guidelines and restrictions imposed on domestic broker-dealers regarding the extension of credit, as provided by Section 7 of the Securities Exchange Act of 1934 and Regulation T promulgated thereunder by the Board of Governors of the Federal Reserve System, with respect to any customer account that includes cleared contracts issued by the Corporation, (j) to comply, in the case of Non-U.S. Securities Firms, with the Rules of the Financial Industry Regulatory Authority governing maintenance margin and cut-off times for the submission of exercise notices by customers, and (k) to consent, in the case of Non-U.S. Securities Firms, to the jurisdiction of Illinois courts and to the application of United States law in connection with any dispute with the Corporation arising from membership.

\* \* \*

## ARTICLE VI - Clearance of Confirmed Trades

\* \* \*

### Close Out Netting

**SECTION 27.** (a) – (h) [No change]

(i) *Disposition of Remaining Margin Assets.* If the Clearing Member is solvent and has not been suspended pursuant to Chapter ~~XXI~~ of the Rules, then any remaining restricted or unrestricted margin deposited by the Clearing Member and remaining after all permissible applications provided for above, shall be released to the Clearing Member to be treated and dealt with by the Clearing Member in accordance with applicable law. If the Clearing Member has been suspended by the Corporation pursuant to Chapter ~~XXI~~, then any restricted margin deposited by a Clearing Member and remaining after application of restricted margin to the full extent provided above shall be segregated to the extent required and held by the Corporation under an appropriate designation for distribution to the persons entitled thereto in accordance with applicable law. Any unrestricted margin remaining shall be held for distribution to the persons entitled thereto under applicable law.

(j) – (m) [No change]

\* \* \*



## Article VIII – Clearing Fund

The Corporation shall maintain a Clearing Fund, as provided in and subject to the terms of Chapter X of the Rules.

### *Maintenance and Purpose of the Clearing Fund*

~~SECTION 1. (a) The Corporation shall maintain a Clearing Fund to which each Clearing Member shall contribute, as provided in this Article VIII, to make good losses suffered by the Corporation, or losses suffered by the Clearing Fund resulting from borrowings pursuant to the authority in Section 5(e) of this Article, (i) as a result of the failure of any Clearing Member to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) as a result of the failure of any Clearing Member (including any Appointed Clearing Member) or of CDS to perform its obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or any other contract or obligation issued, undertaken, or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) as a result of the failure of any Clearing Member to perform any of its obligations to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) in connection with any liquidation of a Clearing Member's open positions, (v) in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, (vi) as a result of the failure of any Clearing Member to make any other required payment or render any other required performance, (vii) as a result of the failure of any bank or securities or commodities clearing organization to perform its obligations to the Corporation for reasons specified in Section 5 of this Article, or (viii) as a result of a borrowing by the Corporation for liquidity needs for same day settlement pursuant to the authority in Section 5(e) of this Article.~~

~~(b) Without limiting any other rights granted herein, each Clearing Member grants to the Corporation a general lien on all cash, Government securities and other property of the Clearing Member contributed to the Clearing Fund (and any proceeds thereof) as security for any obligation of the Clearing Member to the Corporation including, without limitation, any obligation to satisfy a proportionate charge pursuant to Section 5 of this Article VIII.~~

### *Contributions of Clearing Members*

~~SECTION 2. (a) The initial contribution of each Clearing Member to the Clearing Fund shall be \$150,000 or such greater amount as may be fixed by the Risk Committee in its discretion at the time such Clearing Member's application is approved. Notwithstanding anything else to the contrary herein, the initial Clearing Fund contribution of a Futures Only Affiliated Clearing Member may be fixed by the Risk Committee to be the amount calculated pursuant to clause (y) of Rule 1001 (b) if the conditions set forth in Rule 1001(f) are satisfied. The amount of such initial contribution shall remain in force until such time as determined by the Risk Committee (but in any event not later than the end of the first three calendar months commencing after the Clearing Member's admission to membership), after which time the amount of the Clearing~~

~~Member's required contribution to the Clearing Fund shall be determined in accordance with the Rules.~~

~~(b) The formula for determining required Clearing Fund contributions may be altered from time to time by amendment of the Rules, but in no event shall the minimum required contribution to the Clearing Fund be less than \$150,000 except as provided in section 2(a) of this Article VIII with respect to a Futures Only Affiliated Clearing Member. If the contribution to the Clearing Fund to be made by a Clearing Member is increased as a result of an amendment of the Rules, the increase shall not become effective until the Clearing Member is given five business days prior written notice of the amendment. Unless a Clearing Member notifies the Corporation in writing that it wishes to terminate its clearing membership and closes out or transfers all of its open long and short positions before the effective date of such amendment, such Clearing Member shall be liable to make the increased contribution.~~

### ***Form of Contributions***

~~**SECTION 3.** (a) Form and Method of Contributions. Contributions to the Clearing Funds shall be in cash or in government securities.~~

~~(i) *Cash Clearing Fund Requirement.* Clearing Members shall collectively contribute \$3 billion in cash to the Clearing Fund ("Cash Clearing Fund Requirement"). Each Clearing Member's proportionate share of the Cash Clearing Fund Requirement shall be equal in percentage to its proportionate share of the Clearing Fund as determined by Rule 1001. The Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon providing notice to the Risk Committee, shall have the authority to temporarily increase the amount of cash required to be maintained in the Clearing Fund, up to an amount that includes the size of the Clearing Fund as determined in accordance with Rule 1001, for the protection of OCC, Clearing Members or the general public in accordance with the Corporation's policies and procedures. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in Clearing Fund size would (i) be based upon then existing facts and circumstances, (ii) be in furtherance of the integrity of OCC and the stability of the financial system, and (iii) take into consideration the legitimate interests of Clearing Members and market participants. Any temporary increase in the cash Clearing Fund requirement shall be reviewed by the Risk Committee as soon as practical (but in any event, such review must occur within 20 calendar days of such increase) and, if such temporary increase is still in effect, the Risk Committee shall determine whether (A) the increase in the cash Clearing Fund requirement is no longer required, or (B) OCC's rules should be modified to ensure that OCC continues to maintain sufficient liquidity resources.~~

~~(ii) *Government Securities.* Government securities shall be valued at (1) 99.5% of the current market value for maturities less than one year; (2) 98% of the current market value for maturities between one and five years; (3) 96.5% of the current market value for maturities between five and ten years; and (4) 95% of the current market value for maturities in excess of ten years. For the purposes of this Section, the current market value of Government securities shall be determined by the Corporation at such intervals as the Risk Committee shall from time to time~~

~~prescribe, but not less often than monthly, on the basis of the quoted bid price therefor supplied by a source designated by the Corporation. Contributions of Government securities shall be deposited by the Clearing Member in an account of the Corporation in an approved custodian in the name of the Corporation or by such other method as the Corporation may from time to time approve.~~

~~(b) *Assets Denominated in a Foreign Currency.* Notwithstanding any other provision of this Section 3 of Article VIII, in determining the U.S. dollar amount of clearing fund credit to be given to any foreign currency or asset denominated in a foreign currency, the Corporation may use such exchange rates and apply such “haircuts” as it deems appropriate for its protection.~~

~~(c) *Interest or Gains on Government Securities.* Any interest or gain received or accrued on such securities shall belong to the contributing Clearing Member, and any interest on, or proceeds from the maturity of, such securities received by the Corporation shall be credited by the Corporation to an account of the Clearing Member on the records of the Corporation.~~

~~...Interpretations and Policies:~~

~~.01 The Corporation will not accept the delivery of a depository receipt from an approved custodian if the custodian, a parent or an affiliate has an equity interest in the amount of 20% or more of the contributing Clearing Member’s total capital.~~

~~.02 Securities deposited in an account of the Corporation in an approved custodian in the name of the Corporation shall be credited to the Clearing Member’s “clearing fund account,” which shall be a securities account maintained on the records of the Corporation in the name of such Clearing Member, and the Corporation shall be the Clearing Member’s securities intermediary with respect to such securities for purposes of Articles 8 and 9 of the Uniform Commercial Code. So long as any such securities and any proceeds thereof are so credited to the Clearing Member’s clearing fund account, the Corporation shall have a general lien on and perfected security interest in and “control” over such securities and proceeds for purposes of Articles 8 and 9 of the Uniform Commercial Code.~~

~~.03 For a transition period specified by the Corporation, contributions of Government securities may be made in an account at an approved custodian in the name of the Clearing Member and pledged to the Corporation provided that such a contribution shall not be effective until the Corporation receives confirmation satisfactory to it that the securities have been so pledged through an EDP Pledge System.~~

~~.04 For purposes of paragraph (a)(i) of Section 3, a Clearing Member shall satisfy any increase in its required cash contribution pursuant to an increase in Cash Clearing Fund Requirement no later than one hour before the close of the Fedwire on the business day following the Corporation’s issuance of an instruction to increase cash contributions.~~

~~*Investment of Cash Clearing Fund Contributions*~~

~~SECTION 4. (a) Cash contributions to the Clearing Fund may from time to time be partially or wholly invested by the Corporation for its account in Government securities, and to the extent that such contributions are not so invested they shall be deposited by the Corporation in a separate account or accounts for Clearing Fund contributions in approved custodians, provided that such account or accounts may commingle the Clearing Fund contributions of different Clearing Members. Interest earned on cash deposits held at a Federal Reserve Bank shall accrue to the benefit of Clearing Members (calculated daily based on each Clearing Member's pro rata share of Clearing Fund cash deposits), provided that each such Clearing Member has provided OCC with all tax documentation as OCC may from time to time require in order to effectuate such payment, and all other interest earned on investments will accrue to the benefit of the Corporation.~~

#### *Application of Clearing Fund*

~~SECTION 5. (a) If (i) any Clearing Member shall fail to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) any Clearing Member, (including any Appointed Clearing Member) or of CDS shall fail to perform any obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or any other contract or obligation issued or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) any Clearing Member shall fail to perform any obligation to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) the Corporation shall suffer any loss or expense upon any liquidation of a Clearing Member's open positions, (v) the Corporation shall suffer any loss or expense in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, or (vi) any Clearing Member shall fail to make any other payment or render any other performance required under the By-Laws or the Rules, then the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund contribution to the discharge of such obligation, the reimbursement of such loss or expense, or the making of such payment or the funding of such performance. If the sum of all such obligations, losses or expenses, and payments exceeds the sum of the amount of the Clearing Member's total Clearing Fund contribution and the amount of the other funds of the Clearing Member available to the Corporation, and if the Clearing Member fails to pay the Corporation the amount of any such deficiency on demand, the amount of the deficiency shall be paid out of the Clearing Fund and charged on a proportionate basis against all other Clearing Members' computed contributions as fixed at the time, but the Clearing Member who failed to pay the deficiency shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.~~

~~For the purposes of this paragraph, any amount owed by the Corporation to a Participating CCO pursuant to a Participating CCO Agreement as the result of the liquidation of sets of X-M accounts shall be deemed to be a loss suffered by the Corporation upon the liquidation of positions in non-equity securities options.~~

~~(b) (i) If any bank or securities or commodities clearing organization shall fail to perform any obligation to the Corporation when due because of its bankruptcy, insolvency, receivership, suspension of operations, or because of any similar event, and the Corporation shall sustain a loss (whether directly or as a trustee, custodian, or secured party) by reason thereof that is not recoverable out of the Clearing Fund pursuant to paragraph (a), the Corporation may, in its discretion, reimburse itself for such loss out of the Clearing Fund pursuant to this paragraph (b)(i), and the amount of any such reimbursement shall be charged proportionately against all Clearing Members' computed contributions to the Clearing Fund as fixed at the time.~~

~~(ii) With respect to any borrowing by the Corporation for liquidity needs for same day settlement pursuant to the authority in paragraph (e) of this Section 5, if such borrowing remains outstanding for a period of less than thirty days, the Corporation may, in its discretion, consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' computed contributions to the Clearing Fund as fixed at the time, provided however, that if such borrowing remains outstanding on the thirtieth day, the Corporation shall consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' computed contributions to the Clearing Fund as fixed at the time.~~

~~To the extent that a loss resulting from any of the events referred to in this paragraph (b) is recoverable out of the Clearing Fund pursuant to paragraph (a), the provisions of paragraph (a) shall control, and this paragraph (b) shall be inapplicable.~~

~~(c) Whenever any proportionate charge is made against Clearing Members' computed contributions to the Clearing Fund, the Corporation shall promptly notify all Clearing Members of the amount of the charge and the reasons therefor. For the purposes of paragraphs (a) through (c), the amount of any loss sustained by the Corporation shall be determined without reference to the possibility of any subsequent recovery in respect thereof, through insolvency proceedings or otherwise, but the net amount of any such recovery shall be applied in accordance with Section 8 of this Article.~~

~~(d) Notwithstanding the provisions of paragraphs (a) through (c), in lieu of charging a loss or deficiency proportionately to the Clearing Fund computed contributions of non-defaulting Clearing Members pursuant thereto, the Corporation may, in its discretion, subject to the unanimous approval of the holders of Class A Common Stock and Class B Common Stock, elect to charge such loss or deficiency in whole or in part to the Corporation's current earnings or retained earnings. If such charge is made against current earnings, such charge shall be deemed a refund of clearing fees to the non-defaulting Clearing Members to whose Clearing Fund contributions the loss or deficiency would otherwise have been charged, and in that case the Corporation shall notify each such Clearing Member of the aggregate amount of the charge against current earnings, the reasons therefor, and the amount deemed to have been refunded to such Clearing Member. As used herein, the term "current earnings" shall mean the Corporation's net income before taxes for the period from the beginning of the fiscal year in which a loss or deficiency occurs to the close of the calendar month immediately preceding the occurrence of such loss or deficiency, less an amount equal to the aggregate of all refunds of clearing fees~~

~~made or authorized to be made or deemed to have been made for such fiscal year. If the Corporation elects to charge a deficiency in a Clearing Member's Clearing Fund contribution to the Corporation's current earnings or retained earnings, the Clearing Member shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.~~

~~(e) If (i) the Corporation deems it necessary or advisable to borrow or otherwise obtain funds from third parties in order to meet obligations arising out of the default or suspension of a Clearing Member or any action taken by the Corporation in connection therewith pursuant to Chapter XI of the Rules or otherwise; or (ii) the Corporation sustains a loss reimbursable out of the Clearing Fund pursuant to paragraph (b) but elects to borrow or otherwise obtain funds from third parties in lieu of immediately charging such loss to the Clearing Fund; or (iii) the Corporation reasonably believes it necessary to borrow to meet its liquidity needs for same-day settlement as a result of the failure of any bank or securities or commodities clearing organization to achieve daily settlement, and in any case the Corporation determines that it will be unable to borrow or otherwise obtain such funds on acceptable terms on an unsecured basis; then the Corporation may take possession of cash or securities deposited by Clearing Members as contributions to the Clearing Fund and securities in which cash contributions to the Clearing Fund have been invested by the Corporation and use such assets to borrow or otherwise obtain funds through any means determined to be reasonable by the Executive Chairman, Chief Operating Officer or the Chief Administrative Officer of the Corporation in his discretion (including, without limitation, pledging such assets as security for loans and/or using such assets to effect repurchase, securities lending or other transactions); provided, in the case of any transaction effected under the circumstances specified in clause (i) or clause (iii) above, that the funds obtained through such transaction will be used solely for the purposes described in clause (i) or clause (iii), as applicable. The funds obtained by the Corporation pursuant to this paragraph (e), irrespective of how such funds are applied, shall not be deemed to be charges against the Clearing Fund for a period not to exceed thirty days, and, during said period, shall not affect the amount or timing of any charges otherwise required to be made against the Clearing Fund pursuant to this Section. If all or a part of any transaction effected by the Corporation pursuant to this paragraph (e) remains outstanding after thirty days, the Corporation, at the close of business of the thirtieth day (or on the first Business Day thereafter), shall consider the amount of Clearing Fund assets used to support the Corporation's obligations under the outstanding transaction as an actual loss to the Clearing Fund and immediately allocate such loss in accordance with this Section.~~

~~(f) If the Corporation is obligated to make a payment to a Cross Guaranty Party pursuant to a Limited Cross Guaranty Agreement in respect of a suspended Clearing Member, the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund contribution to make such payment, or to reimburse itself for such payment.~~

~~(g) If the Corporation receives any funds in respect of a suspended Clearing Member from a Cross Guaranty Party pursuant to a Limited Cross Guaranty Agreement in circumstances in which the Corporation must still make a charge on a proportionate basis against other Clearing~~

~~Members' computed contributions to the Clearing Fund even after application of such funds, or in circumstances in which the Corporation has already made a charge on a proportionate basis against other Clearing Members' computed contributions to the Clearing Fund, such funds shall be credited to the Clearing Fund.~~

~~--- Interpretations & Policies:~~

~~.01. For purposes of paragraph (a) of this Section 5, the share of any deficiency to be borne by each such other Clearing Member (i.e., excluding the deficient Clearing Member(s)) shall be a fraction, the numerator of which shall be the amount for such Clearing Member that is denoted as (y) in Rule 1001(b), and the denominator shall be the sum of those amounts denoted in (y) across all such other Clearing Members (i.e., excluding the deficient Clearing Member(s)).~~

~~.02 For purposes of paragraph (b) of this Section 5, a Clearing Member's proportionate share of any loss to be charged against such Clearing Member's contribution to the Clearing Fund shall be determined in accordance with the formula prescribed in Interpretation and Policy .01 above.~~

~~.03 If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contributions of the Clearing Member), and the Clearing Member is a Common Member but the Corporation cannot, in its discretion, determine whether or in what amount it will be entitled to receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, or when it will receive such funds, the Corporation may, in its discretion, make a charge against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a). If the Corporation receives funds from a Cross-Guaranty Party in respect of the Clearing Member after making such a charge, the Corporation will allocate such funds to the Clearing Fund in accordance with the provisions of paragraph (g).~~

~~.04 If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contribution of the Clearing Member), and the Clearing Member is a Common Member and the Corporation determines in its discretion that it is likely to receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, the Corporation may, in its discretion and in anticipation of receipt of such funds from the Cross-Guaranty Party, forego making a charge, or make a reduced charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a). If the Corporation thereafter does not receive or determines that it is not likely to receive the anticipated funds from the Cross-Guaranty Party, or receives funds in a smaller amount than anticipated, the Corporation may, in its discretion, make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a).~~

~~.05 If the Corporation receives funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of a suspended Clearing Member, and is thereafter required for any reason whatsoever to refund such funds to the Cross-Guaranty Party, the Corporation may,~~



~~in its discretion, make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (a) (based on the other Clearing Members' computed contributions as fixed at the time of the refund), to make itself whole for the funds refunded to the Cross Guaranty Party.~~

~~.06 In addition to being permitted to take possession of securities deposited by Clearing Members following a default or suspension that has already occurred, the Corporation may take possession of securities deposited by Clearing Members pursuant to clause (i) of paragraph (e) of this Section 5 in anticipation of a potential default by, or suspension of, a Clearing Member.~~

### ~~*Making Good of Charges to Clearing Fund*~~

~~SECTION 6. Whenever an amount is paid out of the Clearing Fund contribution of a Clearing Member, whether by proportionate charge or otherwise, such Clearing Member shall be liable promptly to make good the deficiency in its contribution resulting from such payment. Notwithstanding the foregoing and except as provided for below, if the payment is made as a result of a proportionate charge, a Clearing Member will not be liable to make good more than an additional 100% of the amount of its then required contribution if (i) within five business days following such proportionate charge the Clearing Member notifies the Corporation in writing that it is terminating its status as a Clearing Member, (ii) no opening purchase transaction or opening writing transaction is submitted for clearance through any of the Clearing Member's accounts and (if the Clearing Member is a Market Loan Clearing Member or a Hedge Clearing Member) no Stock Loan is initiated through any of the Clearing Member's accounts after the giving of such notice, and (iii) the Clearing Member closes out or transfers all of its open positions with the Corporation, in each case as promptly as practicable after the giving of such notice; provided that a Clearing Member which so terminates its status as a Clearing Member shall be ineligible to be readmitted to such membership unless the Clearing Member agrees to such reimbursement of the persons who were Clearing Members at the time of such termination as the Board of Directors deems fair and equitable in the circumstances. In the event a Clearing Member notifies the Corporation of its intent to terminate its status as a Clearing Member in accordance with the preceding sentence, and such Clearing Member's computed contribution is less than its minimum required contribution, then the Clearing Member shall also make good 100% of the amount equal to its minimum required contribution less its computed contribution to the Clearing Fund. Each Clearing Member shall have and shall at all times maintain the ability to make good any deficiency described in this Section 6 by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the first business day following the day on which the Corporation notifies the Clearing Member of such deficiency.~~

### ~~*Contribution Refund*~~

~~SECTION 7. Whenever a Clearing Member definitively ceases to be such, the amount of its contribution to the Clearing Fund shall be returned to it, but not until all confirmed trades and open positions of the Clearing Member from which losses or payments chargeable to the Clearing Fund might result have been fulfilled or closed, or, with the approval of the Corporation, another Clearing Member has been substituted thereon. All amounts chargeable~~



~~against a Clearing Member's contribution to the Clearing Fund on account of transactions that occurred while it was a Clearing Member, including proportionate charges and unpaid fees, shall be deducted from the amount returned. For purposes of this Section 7, a Clearing Member will be deemed to have definitively ceased to be a Clearing Member at such time as it has fulfilled all requirements of Sub Sections (i) through (iii) of Section 6 of this Article and has met all outstanding obligations to the Corporation.~~

### ***Recovery of Loss***

~~SECTION 8. If a loss charged proportionately against the contributions of Clearing Members is afterward recovered by the Corporation, in whole or in part, the net amount of such recovery shall be paid to the Clearing Members against whose contributions the loss was charged in proportion to the amounts charged against their respective contributions, whether or not they are still Clearing Members.~~

\* \* \*

## **Article XI - Amendment of the By-Laws and the Rules**

\* \* \*

### **Amendment of the By-Laws**

SECTION 1. The By-Laws may be amended at any time by the Board of Directors upon the affirmative vote of two-thirds of the directors then in office (but not less than a majority of the number of directors fixed by these By-Laws); provided that Sections 2, 3 and 5 of Article II, Article III, the second sentence of Section 1 of Article IV, the first two sentences of Section 1 of Article V, the first sentence of Section 10 of Article VI, Section 11 and 11A of Article VI, Article VIIA, Article VIIB, ~~the first sentence of Section 5(d) of Article VIII,~~ Section 9 of Article IX, ~~and~~ this Section 1 of Article XI, and the second sentence of Section 2 of Article XI may not be amended by action of the Board of Directors without the approval of the holders of all of the outstanding Common Stock of the Corporation entitled to vote thereon. For purposes of this Section, the affirmative vote or consent of an Exchange Director then in office shall be deemed to constitute the approval of the stockholder that elected such Exchange Director; provided, however, that if the Exchange Director announces prior to voting in favor of an amendment, or notes on a written consent of directors approving an amendment, that such Exchange Director's vote or consent does not constitute the action of such stockholder, then the amendment shall require the written approval of such stockholder of such Common Stock.

### **Amendment of the Rules**

SECTION 2. The Rules may be amended at any time by the Board of Directors; provided that any amendment of the introduction to Chapter X of the Rules, Rule 1002, Rule 1006, Rule 1009 and Rule 1010 shall require the affirmative vote of two-thirds of the directors then in office (but not less than a majority of the number of directors fixed by these By-Laws). Notwithstanding

the foregoing, the first sentence of Rule 1006(e) may not be amended by action of the Board of Directors without the approval of the holders of all of the outstanding Common Stock of the Corporation entitled to vote thereon.

\* \* \*

**EXHIBIT 5B**



## OCC Rules

Underlined text indicates new text

~~Strikethrough~~ text indicates deleted text

Double underlined text indicates new text pending in SR-OCC-2017-020 and SR-OCC-2017-809

~~Double strikethrough~~ text indicates deleted text pending in SR-OCC-2017-020 and SR-OCC-2017-809

Double underlined text indicates new text reflecting conforming changes to the rule text pending in SR-OCC-2017-020 and SR-OCC-2017-809

~~Double strikethrough~~ text indicates deleted text reflecting conforming changes to the rule text pending in SR-OCC-2017-020 and SR-OCC-2017-809

The table below indicates where existing provisions are being relocated. In each instance, the rule text in this Exhibit 5B is marked to show any changes from the existing provision. The existing provision reference is indicated in strikethrough text for ease of reference. Thus, for example, if text from Rule XYZ(a) is being relocated to Rule ABC(d); rather than show the text as all strikethrough for Rule XYZ(a) and all underlined in Rule ABC(d), only the differences in the two provisions, if any, are marked with strikethrough or underline, as appropriate.

**Table A. Relocation from OCC By-Laws to OCC Rulebook**

<b>Existing Provision (Art. VIII, By-Laws)</b>	<b>New Provision (Rules)</b>
Sec. 1(a)	Introduction, Chapter X
Sec. 1(a)	1006(a)
Sec. 1(b)	1006(i)
Sec.2(a)	1002(d)
Sec. 2(b)	1002(e)
Sec. 3(a)	1002(a)
Sec. 3(a)(i)	1002(a)(i)
Sec. 3(a)(ii)	1002(a)(ii)
Sec. 3(b)	1002(a)(iii)
Sec. 3(c)	1002(b)
Sec. 3, Interpretation and Policy .01	1002, Interpretation and Policy .01
Sec. 3, Interpretation and Policy .02	1006(j)
Sec. 3, Interpretation and Policy .04	1002, Interpretation and Policy .03
Sec. 4	1002(c)
Sec. 5(a)	1006(b)
Sec. 5(b)	1006(c)
Sec. 5(c)	1006(d)
Sec. 5(d)	1006(e)
Sec. 5(e)	1006(f)
Sec. 5(f)	1006(g)
Sec. 5(g)	1006(g)
Sec. 5, Interpretation and Policy .01*	1006, Interpretation and Policy .01
Sec. 5, Interpretation and Policy .02*	1006, Interpretation and Policy .01
Sec. 5, Interpretation and Policy .03	1006, Interpretation and Policy .02
Sec. 5, Interpretation and Policy .04	1006, Interpretation and Policy .03
Sec. 5, Interpretation and Policy .05	1006, Interpretation and Policy .04
Sec. 5, Interpretation and Policy .06*	Rule 1006(f)
Sec. 6	1006(h)
Sec. 7	1009
Sec. 8	1010

\* Changes to existing provisions indicated with an asterisk are marked as entirely new text to improve readability as these provisions have been consolidated in a manner that is not conducive to marking; however, the substance of the rule is intended to remain the same.

**Table B. Relocation to Different Rule**

<b>Existing Rule</b>	<b>New Rule</b>
1001(b)	1003(a), (b)
1001(b), (c)	1003(b)(i)
1001(c)	1003(b)(i)
1001(d)	1003(b)(ii)
1001(d), (e)	1003, Interpretation and Policy .02
1001(e)	1003(b)(iii)
1001(e)	1003, Interpretation and Policy .03
1001(f)	1002(f)
1001, Interpretation and Policy .01	1001(b)
1001, Interpretation and Policy .04	1003, Interpretation and Policy .01
1003	1005(b)
1004	1008

## Chapter VI - Margins

\* \* \*

### RULE 601 - 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, firm non-lien account or segregated futures 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 created by large-scale Monte Carlo simulations that preserve both univariate and multivariate historical attributes of all included 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 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.

The Corporation's methodology for calculating margin requirements incorporates measures designed to ensure that margin requirements are not lower than those that would be calculated using volatility estimated over a historical look-back period of at least 10 years.

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) – (f) [no change]

***...Interpretations and Policies:***

**.01 - .07** [no change]

\* \* \*

**RULE 609 - Intra-Day Margin**

The Corporation may require the deposit of such additional margin (“intra-day margin”) by any Clearing Member in any account at any time during any business day, as such officer deems advisable to reflect changes in (i) the market price during such day of any series of options held in a short position in such account or of any underlying interest underlying any cleared ~~security contract~~ (including an exercised option) in such account or of any Loaned Stock that is the subject of a stock loan or borrow position in such account, (ii) the size of such Clearing Member’s positions in cleared ~~securities contracts~~ or stock loan or borrow positions, (iii) the value of securities deposited by the Clearing Member as margin, ~~or~~ (iv) the financial position of the Clearing Member, or otherwise to protect the Corporation, other Clearing Members or the general public, or (v) stress test exposures such that a Sufficiency Stress Test (as defined in Rule 1001(a)) identifies an exposure that exceeds 75% of the current Clearing Fund requirement less deficits. ~~¶~~Additionally, the Corporation shall require the deposit of intra-day margin by a Clearing Member in the event that the Corporation, in its discretion, determines that the Clearing Member’s reasonably anticipated settlement obligations to the Corporation would exceed the liquidity resources available to satisfy such settlement obligations. A Clearing Member shall satisfy a required deposit of intra-day margin in immediately available funds within the time prescribed by such officer or, in the absence thereof, within one hour of the Corporation’s issuance of an instruction debiting the applicable bank account of the Clearing Member.

\* \* \*

**Chapter X - Clearing Fund Contributions**

**Introduction**

**SECTION 1.** ~~(a)~~ The Corporation shall maintain a Clearing Fund to which each Clearing Member shall contribute, ~~as provided in this Article VIII,~~ to make good certain losses suffered by the Corporation. As provided in this Chapter X, the size of the Clearing Fund shall at all times be subject to minimum sizing requirements and generally be calculated on a monthly basis

by the Corporation; however, the calculated size of the Clearing Fund may be determined by the Corporation more frequently than monthly under certain conditions specified herein.

**RULE 1001 - Size of Clearing Fund ~~and Amount of Contribution~~**

(a) *Clearing Fund Size.* The ~~total~~ size of the Clearing Fund shall be established ~~by the Corporation on a monthly basis~~ at an amount determined by the Corporation ~~(within the confidence levels selected by the Corporation) to be sufficient~~ to protect the Corporation against loss under simulated default scenarios that include the default of the single Clearing Member Group whose default would be likely to result in the largest draw against the Clearing Fund as well as an event involving the near-simultaneous default of two randomly selected Clearing Member Groups as modeled using “Monte Carlo” simulations similar to those referred to in Rule 601(e). Such calculations shall be made on a daily basis, and the size of the Clearing Fund shall be readjusted monthly to equal the peak five-day rolling average of such calculations observed over the preceding three calendar months plus a prudential margin of safety determined by the Corporation, but may be increased intra-month in accordance with the Corporation’s ~~procedures~~ losses stemming from the default of the two Clearing Member Groups that would potentially cause the largest aggregate credit exposure for the Corporation under stress test scenarios that represent extreme but plausible market conditions (“Sizing Stress Tests”). Such Sizing Stress Tests shall be supplemented by additional historical or hypothetical stress test scenarios (“Sufficiency Stress Tests”) and, in the event Sufficiency Stress Tests call for a larger Clearing Fund size, the Clearing Fund shall be re-sized based on such Sufficiency Stress Test pursuant to paragraph (c) of this Rule 1001. The size of the Clearing Fund for a given month shall not decrease by more than five percent from the prior month.

(b) through (e) relocated to Rule 1003

(f) relocated to Rule 1002(f)

~~(g) Notwithstanding the foregoing, in the event that the calculation pursuant to this Rule 1001 of the clearing fund contribution of a recently admitted Clearing Member results in an amount that is less than the amount determined under Article VIII of the By-Laws, the amount determined under Article VIII shall apply.~~

**~~...Interpretations and Policies:~~**

~~.01 (b) *Minimum Clearing Fund Size.* Notwithstanding the foregoing provisions of paragraph (a) of this Rule 1001, in no event shall the ~~total~~ size of the ~~C~~clearing ~~F~~fund be ~~set at~~ less than \$3 billion ~~plus~~ 110% of the size of the committed liquidity facilities of the Corporation ~~plus the Cash Clearing Fund Requirement (as defined in Rule 1002(a))~~ that are secured by the clearing fund on the date of the calculation.~~

~~.02 For purposes of determining the total size of the clearing fund, the Corporation shall not use confidence levels of less than 99%.~~



~~.03~~ The Corporation will phase in the weighting percentages that are identified in paragraph (b) by, not sooner than 180 calendar days from notice to Clearing Members, implementing temporary weighting percentages of 17.5% for total risk, 75% for open interest, and 7.5% for volume, and not sooner than 360 calendar days, measured from the same date of notice, implementing the weighting percentages that are prescribed in paragraph (b).

.04 relocated to Rule 1003, Interpretations and Policies .01

(c) Intra-Month Sizing Adjustments. If at any time between the regular monthly calculations of the size of the Clearing Fund a Sufficiency Stress Test identifies a breach that exceeds 90% of the size of the Clearing Fund requirement (less any margin collected as a result of a Sufficiency Stress Test breach pursuant to Rule 609), the calculated size of the Clearing Fund shall be increased by the greater of \$1 billion or 125% of the difference between the relevant exposure and the then-current Clearing Fund size.

(d) Temporary Increase to Clearing Fund Size. The Risk Committee, or the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon notice to the Risk Committee, shall have the authority to increase the size of the Clearing Fund at any time for the protection of the Corporation, Clearing Members or the general public. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in Clearing Fund size would (i) be based upon then-existing facts and circumstances, (ii) be in furtherance of the integrity of OCC and the stability of the financial system, and (iii) take into consideration the legitimate interests of Clearing Members and market participants. Any temporary increase in the Clearing Fund shall be reviewed by the Risk Committee as soon as practical and, if such temporary increase is still in effect, the Risk Committee shall determine whether (A) the increase in the cash Clearing Fund requirement is no longer required, or (B) OCC's rules should be modified to ensure that OCC continues to maintain sufficient prefunded financial resources.

## **RULE 1002 - Clearing Fund ~~Statement~~ Contributions**

~~Within ten days after the close of each calendar month, the Corporation shall make available to each Clearing Member a Clearing Fund Statement that shall list the current amount and form of such Clearing Member's contribution to the Clearing Fund and the amount of the contribution required of such Clearing Member for the current calendar month. Any surplus over and above the amount required for the current calendar month will also be shown.~~

~~SECTION 3.~~ (a) *Form and Method of Contributions.* Contributions to the Clearing Fund shall be in cash or in government securities.

~~SECTION 3~~ (i) *Cash Clearing Fund Requirement.* Clearing Members shall collectively contribute \$3 billion in cash to the Clearing Fund ("Cash Clearing Fund Requirement"). Each Clearing Member's proportionate share of the Cash Clearing Fund Requirement shall be equal in percentage to its proportionate share of the Clearing Fund as determined

by Rule ~~1003(a)(y)-1001~~. The Executive Chairman, Chief Administrative Officer, or Chief Operating Officer, upon providing notice to the Risk Committee, shall have the authority to temporarily increase the amount of cash required to be maintained in the Clearing Fund, up to an amount that includes the size of the Clearing Fund as determined in accordance with Rule 1001, for the protection of OCC, Clearing Members or the general public in accordance with the Corporation's policies and procedures. Any determination by the Executive Chairman, Chief Administrative Officer, or Chief Operating Officer to implement a temporary increase in the Cash Clearing Fund Requirement size would (i) be based upon then-existing facts and circumstances, (ii) be in furtherance of the integrity of OCC and the stability of the financial system, and (iii) take into consideration the legitimate interests of Clearing Members and market participants. Any temporary increase in the ~~e~~Cash Clearing Fund ~~R~~Requirement shall be reviewed by the Risk Committee as soon as practical (but in any event, such review must occur within 20 calendar days of such increase) and, if such temporary increase is still in effect, the Risk Committee shall determine whether (A) the increase in the ~~e~~Cash Clearing Fund ~~R~~Requirement is no longer required, or (B) OCC's rules should be modified to ensure that OCC continues to maintain sufficient liquidity resources.

SECTION 3–(ii) *Government Securities*. For purposes of valuing Government securities for calculating contributions to the Clearing Fund, Government securities shall be valued at (1) 99.5% of the current market value for maturities less than one year; (2) 98% of the current market value for maturities between one and five years; (3) 96.5% of the current market value for maturities between five and ten years; and (4) 95% of the current market value for maturities in excess of ten years. For the purposes of this Section Rule, the current market value of Government securities shall be determined by the Corporation at such intervals as the Risk Committee shall from time to time prescribe, but not less often than monthly, on the basis of the quoted bid price therefor supplied by a source designated by the Corporation. Contributions of Government securities shall be deposited by the Clearing Member in an account of the Corporation in an approved custodian in the name of the Corporation or by such other method as the Corporation may from time to time approve.

SECTION 3(b)-(iii) *Assets Denominated in a Foreign Currency*. Notwithstanding any other provision of this Rule 1002-Section 3 of Article VIII, in determining the U.S. dollar amount of clearing fund credit to be given to any foreign currency or asset denominated in a foreign currency, the Corporation may use such exchange rates and apply such “haircuts” as it deems appropriate for its protection.

SECTION 3.(e)-(b) *Interest or Gains on Government Securities*. Any interest or gain received or accrued on ~~such~~ Government securities included within a Clearing Fund contribution shall belong to the contributing Clearing Member, and any interest on, or proceeds from the maturity of, such securities received by the Corporation shall be credited by the Corporation to an account of the Clearing Member on the records of the Corporation.

~~SECTION 4.(a)-(c)~~ Investment of Cash. Cash contributions to the Clearing Fund may from time to time be partially or wholly invested by the Corporation for its account in Government securities, and to the extent that such contributions are not so invested they shall be deposited by the Corporation in a separate account or accounts for Clearing Fund contributions in approved custodians, provided that such account or accounts may commingle the Clearing Fund contributions of different Clearing Members. Interest earned on cash deposits held at a Federal Reserve Bank shall accrue to the benefit of Clearing Members (calculated daily based on each Clearing Member's pro rata share of Clearing Fund cash deposits), provided that each such Clearing Member has provided OCC with all tax documentation as OCC may from time to time require in order to effectuate such payment, and all other interest earned on investments will accrue to the benefit of the Corporation.

~~SECTION 2.(a)-(d)~~ Initial Contribution. The initial contribution of each Clearing Member to the Clearing Fund shall be ~~\$500,000~~\$150,000 or such greater amount as may be fixed by the Risk Committee in its discretion at the time such Clearing Member's membership application is approved. Notwithstanding anything else to the contrary herein, the initial Clearing Fund contribution of a Futures-Only Affiliated Clearing Member may be fixed by the Risk Committee to be the amount calculated pursuant to clause (y) of Rule ~~1001(b)~~1003 if the conditions set forth in Rule ~~1001(f)~~1002(f) are satisfied. The amount of such initial contribution shall remain in force until such time as determined by the Risk Committee (but in any event not later than the end of the first three calendar months commencing after the Clearing Member's admission to membership), after which time the amount of the Clearing Member's required contribution to the Clearing Fund shall be determined in accordance with ~~the Rules~~paragraph (e) of this Rule; provided, however, that such contribution shall at all times remain subject to the minimum contribution requirement under Rule 1003 and to adjustments by the Corporation under Rule 1004.

~~SECTION 2.(b)-(e)~~ Deficits Due to Amendments. ~~The formula for determining required Clearing Fund contributions may be altered from time to time by amendment of the Rules, but in no event shall the minimum required contribution to the Clearing Fund be less than \$150,000 except as provided in section 2(a) of this Article VIII with respect to a Futures-Only Affiliated Clearing Member.~~ If the contribution to the Clearing Fund to be made by a Clearing Member is increased as a result of an amendment of the Rules, the increase shall not become effective until the Clearing Member is given ~~five~~two business days prior written notice of the amendment. Unless a Clearing Member notifies the Corporation in writing that it wishes to terminate its clearing membership and closes out or transfers all of its open long and short positions before the effective date of such amendment, such Clearing Member shall be liable to make the increased contribution by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the second business day following the day on which notice is provided by the Corporation.

~~RULE 1001~~(f) Futures-Only Affiliated Clearing Members. A Futures-Only Affiliated Clearing Member shall be exempt from contributing the amount set forth in clause (x) of ~~paragraph (b) of this Rule~~ 1003(a) if its contribution is equal to the amount specified in clause (y) of ~~paragraph (b)~~Rule 1003(a) and the then existing contribution of its earlier-admitted member affiliate Clearing Member is no less than the amount specified in clause (x) of ~~paragraph (b)~~Rule 1003(a).

... Interpretations and Policies:

~~SECTION 3, Interpretations and Policies~~ **.01** The Corporation will not accept the delivery of a depository receipt from an approved custodian if the approved custodian, a parent, or an affiliate has an equity interest in the amount of 20% or more of the contributing Clearing Member's total capital.

.02 The ability of a Clearing Member to terminate its clearing membership under Rule 1002(e) shall be separate from the ability of a Clearing Member to terminate its status as such under Rule 1006(h), in each case subject to the conditions specified therein.

~~SECTION 3, Interpretations and Policies~~ ~~.04~~ **.03** For purposes of ~~paragraph (a)(i) of Section 3~~ Rule 1002(a)(i), a Clearing Member shall satisfy any increase in its required cash contribution pursuant to an increase in Cash Clearing Fund Requirement no later than one hour before the close of the Fedwire on the business day following the Corporation's issuance of an instruction to increase cash contributions.

### RULE 1003 - Clearing Fund Allocation Methodology

~~RULE 1001(b)(a) Allocated Contribution. Except as otherwise provided under paragraph (g) or as modified in accordance with paragraph (f) of this Rule, Unless determined pursuant to Rule 1002(d) or (f), the contribution to the Clearing Fund of each Clearing Member for each calendar month shall be the sum of (x) \$150,000-\$500,000 (such amount being the "fixed amount") and a separate amount equal to (y) such Clearing Member's proportionate share of an amount sufficient to cause the total amount of the Clearing Fund (after taking into account each Clearing Member's fixed amount) to be equal to the amount-Clearing Fund size determined pursuant to paragraph (a) of this Rule 1001(a) (such amount being the "variable amount"). In no event shall the contribution of a Clearing Member be less than the fixed amount. A Clearing Member's contribution shall at all times be subject to separate and additional adjustments by the Corporation pursuant to Rule 1004. A Clearing Member's proportionate share of the variable amount set forth in clause (y) of the preceding sentence shall be equal to a weighted average of the Clearing Member's proportionate share of total risk, open interest and volume, in all accounts (including paired X-M accounts) of the Clearing Member, as calculated in accordance with this Rule 1003 and the Corporation's policies and procedures.~~

(b) A Clearing Member's proportionate share of the variable amount of its Clearing Fund contribution shall be equal to a weighted average of the Clearing Member's proportionate share of total risk, open interest and volume. In calculating this average, total risk shall have a weighting of 35%-70%, open interest shall have a weighting of 50%-15%, and volume shall have a weighting of 15%.

(i) Total Risk. For purposes of this Rule ~~1001~~1003, "total risk" means the margin requirement calculated and reported by the Corporation with respect to all accounts of a Clearing Member ~~exclusive of less~~ the net asset value of the positions in such accounts aggregated across all such accounts. ~~RULE 1001(e)~~ A Clearing Member's proportionate share of total risk shall be equal to a fraction, the numerator of which shall be the daily average of the total risk applicable to all accounts of such Clearing Member for the

preceding calendar month, and the denominator of which shall be the daily average of the total risk applicable to all accounts of all Clearing Members for the preceding calendar month.

~~RULE 1001(d)-(ii) *Open Interest.*~~ A Clearing Member's proportionate share of open interest shall be equal to a fraction, the numerator of which shall be the daily average number of open positions in cleared contracts ~~(with the number of OTC options contracts adjusted as needed to ensure that the number of such OTC options contracts, as adjusted, is approximately equal to the number of option contracts other than OTC option contracts that would cover the same notional value or units of the same underlying interest)~~ plus cleared-contract equivalent units attributable to open stock loan and borrow positions held by such Clearing Member with the Corporation and the denominator of which shall be the daily average number of open positions in cleared contracts (adjusted in the same manner as in the numerator) plus cleared-contract equivalent units attributable to open stock loan and borrow positions held by all Clearing Members during the preceding calendar month. The numerator and denominator shall each include the average daily number of contracts held in paired X-M accounts.

~~RULE 1001(e)-(iii) *Volume.*~~ A Clearing Member's proportionate share of volume shall be equal to a fraction, the numerator of which shall be the daily average number of all cleared ~~(or executed in the case of an Execution Only Clearing Member)~~ contracts ~~(with the number of OTC options contracts adjusted as needed to ensure that the number of such OTC options contracts, as adjusted, is approximately equal to the number of option contracts other than OTC option contracts that would cover the same notional value or units of the same underlying interest)~~ and cleared-contract equivalent units attributable to stock loan and borrow positions cleared by such Clearing Member during ~~the preceding calendar month~~ a look-back period determined by the Corporation from time to time and the denominator of which shall be the daily average number of all cleared ~~(or executed in the case of an Execution Only Clearing Member)~~ contracts (adjusted in the same manner as in the numerator) and cleared-contract equivalent units attributable to stock loan and borrow positions cleared by all Clearing Members during the preceding ~~calendar~~ month. The numerator and denominator shall each include the average daily number of contracts cleared in paired X-M accounts.

### *... Interpretations and Policies:*

~~RULE 1001, *Interpretations and Policies .04-.01*~~ Cleared contract equivalent units attributable to a stock loan and borrow position for purposes of the calculations in ~~paragraphs (d) and (e)~~Rule 1003(b)(ii) and (iii) will be calculated by dividing the number of shares of Eligible Stock underlying such position by a divisor that the Corporation determines, in its sole discretion, to be fair to the affected Clearing Members.

~~RULE 1001(d).02~~ For purposes of Rule 1003(b)(ii) and (iii), the numerator and denominator of the relevant fractions shall include OTC options contracts and A Clearing Member's proportionate share of open interest shall be equal to a fraction, the numerator of which shall be the daily average number of open positions in cleared contracts (with the number of such OTC options contracts shall be adjusted as needed to ensure that the number of such OTC options

contracts, as adjusted, is approximately equal to the number of option contracts other than OTC option contracts that would cover the same notional value or units of the same underlying interest) ~~plus cleared contract equivalent units attributable to open stock loan and borrow positions held by such Clearing Member with the Corporation and the denominator of which shall be the daily average number of open positions in cleared contracts (adjusted in the same manner as in the numerator) plus cleared contract equivalent units attributable to open stock loan and borrow positions held by all Clearing Members during the preceding calendar month. The numerator and denominator shall each include the average daily number of contracts held in paired X-M accounts.~~

.03 The allocation methodology in this Rule 1003 shall be phased in over a three month period after implementation by adjusting 35% of the weighting to total risk from open interest by 10% in the first month, 10% in the second month, and 15% in the third month.

#### **RULE 1004 - Adjustments to Clearing Fund Contributions**

Adjusted Contribution. The required Clearing Fund contribution of a Clearing Member may be adjusted by the Corporation due to mergers, consolidations, position transfers, business expansions, membership approval or other similar events in connection with the calculations made in respect of a particular calendar month or at any other time. The Corporation shall provide notice to affected Clearing Members, by means of the reports described in Rule 1007, as soon as practicable after any such adjustment is determined. Any deficit resulting from the adjusted contribution shall be satisfied by the Clearing Member as provided in Rule 1005(a); provided, however that a deficit that would otherwise be required to be satisfied on the first business day of a calendar month may be satisfied on the second business day if the deficit coincides with a deficit due to regular monthly sizing of the Clearing Fund as provided for in Rule 1005(b). All individual adjustments as of a particular date, taken together, may result in a corresponding increase in the amount of the Clearing Fund but shall not be deemed to be a change in the calculated Clearing Fund size as that may be determined under Rule 1001. Any adjusted contribution resulting from any adjustment shall be in effect until the earlier of the next adjustment of the calculated size of the Clearing Fund under Rule 1001, or the next adjustment of the Clearing Member's required contribution pursuant to this paragraph.

#### **RULE 1005 - Deficits and Increased Contributions**

##### **RULE 1003 – Time of Deposits**

(a) Deficits Generally. Except as otherwise provided in this Chapter X, including but not limited to paragraph (b) below and Rule 1002(e), or as the Corporation may otherwise agree from time to time in writing, whenever a report for a Clearing Member described in Rule 1007 shows a deficit, including but not limited to a deficit caused by a decrease in the value of the Clearing Member's contribution or an adjusted contribution pursuant to Rule 1004, such Clearing Member shall satisfy the deficit by a deposit in a form approved by the Corporation no later than one hour after being notified by the Corporation of such deficit.



(b) Deficits Due to Intra-Month and Regular Monthly Sizing. ~~Whenever a Clearing Member's Clearing Fund Statement shows a deficit, Whenever a report described in Rule 1007 is made available in connection with regular monthly or intra-month determination of the calculated size of the Clearing Fund under Rule 1001 and the report shows a deficit for any Clearing Member,~~ such Clearing Member shall satisfy the deficit by a deposit in a form approved by the ~~By-Laws within five business days of the date of issuance of such Clearing Fund Statement~~ Corporation by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the second business day following the day on which notice is provided by the Corporation.

(c) Debit Authority of the Corporation. ~~Whenever a Clearing Member fails to timely satisfy any deficit shown on a report as described in Rule 1007, including but not limited to a deficit caused by the sizing determination pursuant to Rule 1001, a making good of a proportionate charge pursuant to Rule 1006(h), or a deficit caused for any other reason, the Corporation shall be authorized to withdraw from the Clearing Member's bank account established in respect of any firm account, at a time specified by the Corporation (which in the case of a deficit resulting from the regular monthly determination of the calculated size of the Clearing Fund may be different from the time specified in connection with deficits caused for other reasons), an amount equal to such deficit, and any amount withdrawn by the Corporation will be treated as a cash contribution to the Clearing Fund. If the Corporation is unable to withdraw an amount equal to the deficit, any such failure may subject the Clearing Member to suspension and disciplinary proceedings as provided for in the By-Laws and Rules, including under Chapters XI and XII.~~

### RULE 1006 - Purpose and Use of Clearing Fund

~~SECTION 1.(a)~~ (a) Conditions for Clearing Fund Use. ~~The Corporation shall maintain a Clearing Fund to which each Clearing Member shall contribute, as provided in this Article VIII, may be used~~ to make good losses or expenses suffered by the Corporation, or losses suffered by the Clearing Fund resulting from borrowings pursuant to the authority in ~~Section 5(e) of this Article~~ Rule 1006(f), (i) as a result of the failure of any Clearing Member to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) as a result of the failure of any Clearing Member (including any Appointed Clearing Member) or of CDS to perform its obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or matured future or any other contract or obligation issued, undertaken, or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) as a result of the failure of any Clearing Member to perform any of its obligations to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) in connection with any liquidation of a Clearing Member's open positions, (v) in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, (vi) as a result of the failure of any Clearing Member to make any other required payment or render any other required performance, (vii) as a result of the failure of any bank or securities or commodities clearing organization to perform its obligations to the Corporation for reasons specified in ~~Section 5 of this Article paragraph (c) of this Rule 1006~~, or (viii) as a result of a borrowing by the Corporation for liquidity needs for same day settlement pursuant to the authority in ~~Section 5(e) of this Article~~ Rule 1006(f). Notwithstanding the foregoing, in the event that the Corporation performs a Voluntary Tear-Up

or a Partial Tear-Up pursuant to Rule 1111, the Clearing Fund may be used to provide compensation to non-defaulting Clearing Members and their customers as a means of re-allocating the losses, costs and fees imposed upon them as a result of such Voluntary Tear-Up or Partial Tear-Up, but only to the extent that such losses, costs and fees can be reasonably determined by the Corporation.

~~SECTION 5.(a)-(b) *Clearing Member Failures.* If (i) any Clearing Member shall fail to discharge duly any obligation on or arising from any confirmed trade accepted by the Corporation, (ii) any Clearing Member, (including any Appointed Clearing Member) or of CDS shall fail to perform any obligations (including its obligations to the correspondent clearing corporation) under or arising from any exercised or assigned option contract or any other contract or obligation issued or guaranteed by the Corporation or in respect of which the Corporation is otherwise liable, (iii) any Clearing Member shall fail to perform any obligation to the Corporation in respect of the stock loan and borrow positions of such Clearing Member, (iv) the Corporation shall suffer any loss or expense upon any liquidation of a Clearing Member's open positions, (v) the Corporation shall suffer any loss or expense in connection with protective transactions effected for the account of the Corporation pursuant to Chapter XI of the Rules, or (vi) any Clearing Member shall fail to make any other payment or render any other performance required under the By Laws or the Rules, then Upon occurrence of any of the events described in clauses (i) through (vi) of paragraph (a) of this Rule, the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund contribution to the discharge of ~~such~~the obligation, the reimbursement of such loss or expense, or the making of such payment or the funding of ~~such~~the performance, as applicable. If the sum of all such obligations, losses or expenses, and payments exceeds the sum of the amount of the Clearing Member's total Clearing Fund contribution and the amount of the other funds of the Clearing Member available to the Corporation, and if the Clearing Member fails to pay the Corporation the amount of any such deficiency on demand, the amount of the deficiency shall be paid out of the Clearing Fund and charged on a proportionate basis against all other Clearing Members' required contributions as ~~fixed-calculated~~ at the time, but the Clearing Member who failed to pay the deficiency shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.~~

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~~(vii) If the Corporation performs a Voluntary Tear-Up or a Partial Tear-Up pursuant to Rule 1111, then, the Corporation may elect to proportionately charge the Clearing Fund in the amount(s) the Corporation reasonably determines necessary to compensate non-defaulting Clearing Members and their customers for the losses, costs or fees imposed upon them as a directly result of such Voluntary Tear-Up or Partial Tear-Up, but only to the extent that such losses, costs and fees can be reasonably determined by the Corporation.~~

For purposes of this Rule 1006(b), a Clearing Member's proportionate share of any loss to be charged against such Clearing Member's contribution to the Clearing Fund shall be determined in accordance with the formula prescribed in Interpretation and Policy .01 below.



SECTION 5.(b)-(c) Bank or Clearing Organization. (i) If any bank or securities or commodities clearing organization shall fail to perform any obligation to the Corporation when due because of its bankruptcy, insolvency, receivership, suspension of operations, or ~~because of~~ any similar event, and the Corporation shall sustain a loss (whether directly or as a trustee, custodian, or secured party) by reason thereof that is not recoverable out of the Clearing Fund pursuant to paragraph (ab), the Corporation may, in its discretion, reimburse itself for such loss out of the Clearing Fund pursuant to this paragraph ~~(c)-(b)(i)~~, and the amount of any such reimbursement shall be charged proportionately against all Clearing Members' ~~computed~~required contributions to the Clearing Fund as ~~fixed~~calculated at the time.

(ii) With respect to any borrowing by the Corporation for liquidity needs for same day settlement pursuant to the authority in paragraph (e) of this ~~Section 5~~Rule, if such borrowing remains outstanding for a period of less than thirty days, the Corporation may, in its discretion, consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' ~~computed~~required contributions to the Clearing Fund as ~~fixed~~calculated at the time, provided however, that if such borrowing remains outstanding on the thirtieth day, the Corporation shall consider such amount an actual loss to the Clearing Fund and the amount of any such loss shall be charged proportionately against all Clearing Members' ~~computed~~required contributions to the Clearing Fund as ~~fixed~~calculated at the time.

For purposes of this Rule 1006(c), a Clearing Member's proportionate share of any loss to be charged against such Clearing Member's contribution to the Clearing Fund shall be determined in accordance with the formula prescribed in Interpretation and Policy .01 below. To the extent that a loss resulting from any of the events referred to in this paragraph ~~(b)~~ is recoverable out of the Clearing Fund pursuant to paragraph (ab), the provisions of paragraph (ab) shall control, and this paragraph ~~(bc)~~ shall be inapplicable.

SECTION 5.(e)-(d) Notice of Charges. Whenever any proportionate charge is made against Clearing Members' ~~computed~~ contributions to the Clearing Fund, the Corporation shall promptly notify all Clearing Members of the amount of the charge and the reasons therefor. For the purposes of paragraphs (ab) through (ed), the amount of any loss sustained by the Corporation shall be determined without reference to the possibility of any subsequent recovery in respect thereof, through insolvency proceedings or otherwise, but the net amount of any such recovery shall be applied in accordance with ~~Section 8 of this Article~~paragraph (h).

SECTION 5.(d)-(e) Retained Earnings. Notwithstanding the provisions of paragraphs (ab) through (ed), in lieu of charging a loss or deficiency proportionately to the Clearing Fund ~~computed~~required contributions of non-defaulting Clearing Members pursuant thereto, the Corporation may, in its discretion, subject to the unanimous approval of the holders of Class A Common Stock and Class B Common Stock, elect to charge such loss or deficiency in whole or in part against the Corporation's current earnings or retained earnings. If such charge is made against current earnings, such charge shall be deemed a refund of clearing fees to the non-defaulting Clearing Members to whose Clearing Fund contributions the loss or deficiency would otherwise have been charged, and in that case the Corporation shall notify each such Clearing

Member of the aggregate amount of the charge against current earnings, the reasons therefor, and the amount deemed to have been refunded to such Clearing Member. As used herein, the term “current earnings” shall mean the Corporation's net income before taxes for the period from the beginning of the fiscal year in which a loss or deficiency occurs to the close of the calendar month immediately preceding the occurrence of such loss or deficiency, less an amount equal to the aggregate of all refunds of clearing fees made or authorized to be made or deemed to have been made for such fiscal year. If the Corporation elects to charge a deficiency in a Clearing Member's Clearing Fund contribution ~~to~~against the Corporation's current earnings or retained earnings, the Clearing Member shall remain liable to the Corporation for the full amount of such deficiency until repayment thereof by such Clearing Member.

**SECTION 5.(e)-(f) Borrowings.** If (i) the Corporation deems it necessary or advisable to borrow or otherwise obtain funds from third parties in order to meet obligations arising out of the default or suspension, or in anticipation of the potential default or suspension, of a Clearing Member or any action taken by the Corporation in connection therewith pursuant to Chapter XI of the Rules or otherwise; or (ii) the Corporation sustains a loss reimbursable out of the Clearing Fund pursuant to paragraph ~~(bc)~~ but elects to borrow or otherwise obtain funds from third parties in lieu of immediately charging such loss to the Clearing Fund; or (iii) the Corporation reasonably believes it necessary to borrow to meet its liquidity needs for same-day settlement as a result of the failure of any bank or securities or commodities clearing organization to achieve daily settlement, and in any case the Corporation determines that it will be unable to borrow or otherwise obtain such funds on acceptable terms on an unsecured basis; then the Corporation may take possession of cash or securities deposited by Clearing Members as contributions to the Clearing Fund and securities in which cash contributions to the Clearing Fund have been invested by the Corporation and use such assets to borrow or otherwise obtain funds through any means determined to be reasonable by the Executive Chairman, Chief Operating Officer or the Chief Administrative Officer of the Corporation in his discretion (including, without limitation, pledging such assets as security for loans and/or using such assets to effect repurchase, securities lending or other transactions); provided, in the case of any transaction effected under the circumstances specified in clause (i) or clause (iii) above, that the funds obtained through such transaction will be used solely for the purposes described in clause (i) or clause (iii), as applicable. The funds obtained by the Corporation pursuant to this paragraph ~~(ef)~~, irrespective of how such funds are applied, shall not be deemed to be charges against the Clearing Fund for a period not to exceed thirty days, and, during said period, shall not affect the amount or timing of any charges otherwise required to be made against the Clearing Fund pursuant to this

~~Section~~Chapter X. If all or a part of any transaction effected by the Corporation pursuant to this paragraph ~~(ef)~~ remains outstanding after thirty days, the Corporation, at the close of business of the thirtieth day (or on the first Business Day thereafter), shall consider the amount of Clearing Fund assets used to support the Corporation's obligations under the outstanding transaction as an actual loss to the Clearing Fund and immediately allocate such loss in accordance with this ~~Section~~Chapter X.

**SECTION 5.(f)-(g) Cross Guaranty Parties.** If the Corporation is obligated to make a payment to a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of a suspended Clearing Member, the Corporation shall (after appropriate application of other funds in the accounts of the Clearing Member) apply the Clearing Member's Clearing Fund

contribution to make such payment, or to reimburse itself for such payment. ~~SECTION 5.(g)~~ If the Corporation receives any funds in respect of a suspended Clearing Member from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in circumstances in which the Corporation must still make a charge on a proportionate basis against other Clearing Members' ~~computed~~required contributions to the Clearing Fund even after application of such funds, or in circumstances in which the Corporation has already made a charge on a proportionate basis against other Clearing Members' ~~computed~~required contributions to the Clearing Fund, such funds shall be credited to the Clearing Fund.

~~SECTION 6.(h)~~ Making Good of Charges to ~~the~~ Clearing Fund.

~~(A) (a) Making Good of Charges to the Clearing Fund~~Replenishment. Whenever an amount is paid out of the Clearing Fund contribution of a Clearing Member, whether by proportionate charge or otherwise, such Clearing Member shall be liable to promptly ~~to~~ make good the deficiency in its required contribution resulting from such payment by replenishment of the Clearing Fund. ~~Notwithstanding the foregoing and except as provided for below, if the payment is made as a result of a proportionate charge, a Clearing Member will not be liable to make good more than an additional 100% of the amount of its then required contribution if (i) within five business days following such proportionate charge the Clearing Member notifies the Corporation in writing that it is terminating its status as a Clearing Member, (ii) no opening purchase transaction or opening writing transaction is submitted for clearance through any of the Clearing Member's accounts and (if the Clearing Member is a Market Loan Clearing Member or a Hedge Clearing Member) no Stock Loan is initiated through any of the Clearing Member's accounts after the giving of such notice, and (iii) the Clearing Member closes out or transfers all of its open positions with the Corporation, in each case as promptly as practicable after the giving of such notice; provided that a Clearing Member which so terminates its status as a Clearing Member shall be ineligible to be readmitted to such membership unless the Clearing Member agrees to such reimbursement of the persons who were Clearing Members at the time of such termination as the Board of Directors deems fair and equitable in the circumstances. In the event a Clearing Member notifies the Corporation of its intent to terminate its status as a Clearing Member in accordance with the preceding sentence, and such Clearing Member's computed contribution is less than its minimum required contribution, then the Clearing Member shall also make good 100% of the amount equal to its minimum required contribution less its computed contribution to the Clearing Fund.~~ Each Clearing Member shall have and shall at all times maintain the ability to ~~make good~~replenish any deficiency described in this ~~Section 6~~Rule 1006(h) by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the first business day following the day on which the Corporation notifies the Clearing Member of such deficiency.

~~(B) (b) Cooling-Off Period; Assessments.~~ Notwithstanding anything in ~~Section 6~~this Rule 1006(h) and except as provided for below, if an amount is paid out of the Clearing Fund as a result of a proportionate charge under Rule 1006(b) resulting from any of the events described in clauses (i) through (iv) of ~~Section 5(a)~~Rule 1006(a), then starting on the date of such proportionate charge there shall automatically commence a cooling-off period during which a Clearing Member will not be liable to make good more than an additional 200% of the amount of its then required contribution (for definitional purposes, amounts in excess of a

Clearing Member's then required contribution shall be "assessments"). The cooling-off period shall be fifteen consecutive calendar days from the date of such proportionate charge; provided however, that if one or more subsequent events described in clauses (i) through (iv) of ~~Section 5(a)~~Rule 1006(a) occur during the fifteen-day period and result in one or more proportionate charges against the Clearing Fund, the cooling-off period shall be extended through (i) the fifteenth calendar day from the date of the most recent proportionate charge resulting from the subsequent event, or (ii) the twentieth calendar day from the date of the initial proportionate charge, whichever is sooner. After the cooling-off period ends, Clearing Members shall not be liable for any deficiency arising from losses or expenses suffered by the Corporation as a result of any event described in clauses (i) through (iv) of ~~Section 5(a)~~Rule 1006(a) that occurred during the cooling-off period. Each Clearing Member shall have and shall at all times maintain the ability to make good any deficiency described in this ~~Section 6(b)~~Rule 1006(h) by 9:00 A.M. Central Time (10:00 A.M. Eastern Time) on the first business day following the day on which the Corporation notifies the Clearing Member of such deficiency.

~~(C)(e)~~ Termination During Cooling-Off Period. After the expiration of the cooling-off period, a Clearing Member will not be liable for replenishment of the Clearing Fund as required by ~~Section 6(a)~~paragraph (A) of this Rule 1006(h) or assessments as contemplated by ~~Section 6(b)~~paragraph (B) of this Rule 1006(h), if (i) not later than the last day of the cooling-off period the Clearing Member notifies the Secretary of the Corporation in writing that it is terminating its status as a Clearing Member, (ii) after giving such notice no opening purchase transaction or opening writing transaction is submitted for clearance through any of the Clearing Member's accounts and (if the Clearing Member is a Market Loan Clearing Member or a Hedge Clearing Member) no Stock Loan is initiated through any of the Clearing Member's accounts after the giving of such notice, and (iii) the Clearing Member closes out or transfers all of its open positions with the Corporation, in each case not later than the last day of the cooling off period. A Clearing Member that so terminates its status as a Clearing Member shall be ineligible to be readmitted to such membership unless the Clearing Member agrees to such reimbursement of the persons who were Clearing Members at the time of such termination as the Board of Directors deems fair and equitable in the circumstances. In the event a Clearing Member notifies the Corporation of its intent to terminate its status as a Clearing Member in accordance with ~~this Section 6(e)~~paragraph (C) of this Rule 1006(h), and such Clearing Member's computed contribution is less than its minimum required contribution, then the Clearing Member shall also make good 100% of the amount equal to its minimum required contribution less its computed contribution to the Clearing Fund.

**SECTION 1.(b)-(i) General Lien.** Without limiting any other rights granted herein, each Clearing Member grants to the Corporation a general lien on all cash, Government securities and other property of the Clearing Member contributed to the Clearing Fund (and any proceeds thereof) as security for any obligation of the Clearing Member to the Corporation including, without limitation, any obligation to satisfy a proportionate charge pursuant to ~~Section 5 of this Article VIII~~this Rule 1006.

~~SECTION 3, Interpretations and Policies .02~~ (j) Securities Intermediary. Securities deposited in an account of the Corporation in an approved custodian in the name of the Corporation shall be credited to the Clearing Member's "clearing fund account," which shall be a securities account maintained on the records of the Corporation in the name of such Clearing Member, and the Corporation shall be the Clearing Member's securities intermediary with respect to such securities for purposes of Articles 8 and 9 of the Uniform Commercial Code. So long as any such securities and any proceeds thereof are so credited to the Clearing Member's clearing fund account, the Corporation shall have a general lien on and perfected security interest in and "control" over such securities and proceeds for purposes of Articles 8 and 9 of the Uniform Commercial Code.

*... Interpretations & Policies:*

.01 For purposes of paragraphs (b) and (c) of this Rule 1006, the share of any deficiency to be borne by each Clearing Member (other than the suspended Clearing Member(s)) shall be a fraction, the numerator of which shall be the sum of the fixed amount and variable amount calculated pursuant to Rule 1003 for such Clearing Member (or its initial contribution if applicable) and the denominator of which shall be the sum of the fixed amounts, variable amounts and any initial contributions across all Clearing Members (other than the suspended Clearing Member(s)).

~~SECTION 5, Interpretations and Policies .03~~ .02 If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contributions of the Clearing Member), and the Clearing Member is a Common Member but the Corporation cannot, in its discretion, determine whether or in what amount it will be entitled to receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, or when it will receive such funds, the Corporation may, in its discretion, make a charge against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph ~~(ab)~~. If the Corporation receives funds from a Cross-Guaranty Party in respect of the Clearing Member after making such a charge, the Corporation will ~~allocate~~ credit such funds to the Clearing Fund in accordance with the provisions of ~~paragraph (g)~~ Rule 1010.

~~SECTION 5, Interpretations and Policies .04~~ .03 If the Corporation has a deficiency after the application of all of the funds of a suspended Clearing Member that are available to the Corporation (including the Clearing Fund contribution of the Clearing Member), and the Clearing Member is a Common Member and the Corporation determines in its discretion that it is likely to receive funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of the Clearing Member, the Corporation may, in its discretion and in anticipation of receipt of such funds from the Cross-Guaranty Party, forego making a charge, or make a reduced charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph ~~(ab)~~. If the Corporation thereafter does not receive or determines that it is not likely to receive the anticipated funds from the Cross-Guaranty Party, or receives funds in a smaller amount than anticipated, the Corporation may, in its discretion,



make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (ab).

**SECTION 5, Interpretations and Policies .05-.04** If the Corporation receives funds from a Cross-Guaranty Party pursuant to a Limited Cross-Guaranty Agreement in respect of a suspended Clearing Member, and is thereafter required for any reason whatsoever to refund such funds to the Cross-Guaranty Party, the Corporation may, in its discretion, make a charge, or an additional charge, against other Clearing Members' contributions to the Clearing Fund in accordance with the provisions of paragraph (ab) (based on the other Clearing Members' ~~computed~~ contributions as fixed at the time of the refund), to make itself whole for the funds refunded to the Cross-Guaranty Party.

### **RULE 1007 – Reports**

At least once each business day, the Corporation shall make available to each Clearing Member certain reports listing the current amount and form of such Clearing Member's contribution to the Clearing Fund, the current amount of the contribution required of such Clearing Member, including the Clearing Member's required cash contribution to the Clearing Fund, and any deficit in the Clearing Member's contribution or surplus over and above the required amount, as applicable. The Corporation shall also issue a report whenever the calculated size of the Clearing Fund has changed, whether as the result of regular monthly sizing of the Clearing Fund or otherwise.

### **RULE 10041008 – Withdrawals of Excess Clearing Fund**

In the event that the Clearing Fund ~~Statement report~~ of a Clearing Member shows a surplus, such surplus may be withdrawn by the Clearing Member ~~on the business day following issuance of the Statement~~ by submitting a Clearing Fund withdrawal request to the Corporation in such form as the Corporation shall prescribe. Thereupon, the Corporation shall authorize withdrawal of the excess contribution.

### **RULE 1009 – Contribution Refunds**

**SECTION 7.** Whenever a Clearing Member definitively ceases to be such, the amount of its contribution to the Clearing Fund shall be returned to it, but not until all confirmed trades and open positions of the Clearing Member from which losses or payments chargeable to the Clearing Fund might result have been fulfilled or closed, or, with the approval of the Corporation, another Clearing Member has been substituted thereon. All amounts chargeable against a Clearing Member's contribution to the Clearing Fund on account of transactions that occurred while it was a Clearing Member, including proportionate charges and unpaid fees, shall be deducted from the amount returned. For purposes of this ~~Section 7~~ **Rule 1009**, a Clearing Member will be deemed to have definitively ceased to be a Clearing Member at such time as it

has fulfilled all requirements of Sub-~~S~~sections (i) through (iii) of ~~Section 6 of this Article~~Rule 1006(h) and has met all outstanding obligations to the Corporation.

**RULE 1010 – Recovery of Losses**

~~SECTION 8.~~ If a loss charged proportionately against the contributions of Clearing Members is afterward recovered by the Corporation, in whole or in part, the net amount of such recovery shall be paid to the Clearing Members against whose contributions the loss was charged in proportion to the amounts charged against their respective contributions, whether or not they are still Clearing Members.

\* \* \*

**Chapter XI - Suspension of a Clearing Member**

\* \* \*

**RULE 1106 - Open Positions**

(a) – (d) [No change]

(e) *Exceptions.*

(1) – (2) [No change]

(A) – (B) [No change]

(C) If the liquidation of the suspended Clearing Member’s business with the Corporation pursuant to this Chapter XI results in a deficiency that would result in a proportionate charge against the Clearing Fund contributions of all other Clearing Members pursuant to ~~Article VIII, Section 5 of the By-Laws~~ Rule 1006, then each Participant that failed to purchase or assume a percentage of the auction portfolio at least equal to its minimum participation level shall be subject to a priority charge (“Priority Charge”) against such Participant’s Clearing Fund contribution. The amount of the Priority Charge shall be determined in accordance with a formula set forth in the OTC Options Auction Procedures; provided that the Priority Charge shall not exceed the amount of the Clearing Member’s required Clearing Fund contribution at the time the Priority Charge is made. If a deficiency remains after application of such Priority Charges, the Corporation shall then make a proportionate charge against the Clearing Fund contributions of all Clearing Members, including Participants, pursuant to ~~Article VIII, Section 5 of the By-Laws~~ Rule 1006; provided, however, that if a Participant notifies the Corporation within the specified time following such proportionate charge that it will terminate its status as a Clearing Member as permitted, and in satisfaction of the conditions imposed, under ~~Article VIII, Section 6 of the By-Laws~~ Rule 1006(h), then the amount of any Priority Charge to which such Participant

was subject shall be treated as if it had been a part of the proportionate charge and shall not be construed to increase the maximum liability of the Participant to make additional contributions to the Clearing Fund pursuant to ~~such Section 6~~Rule 1006(h).

\* \* \*



Required fields are shown with yellow backgrounds and asterisks.

Page 1 of * <input type="text" value="7"/>	SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4	File No.* SR - <input type="text" value="2018"/> - * <input type="text" value="008"/> Amendment No. (req. for Amendments *) <input type="text" value="2"/>
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Filing by Options Clearing Corporation  
Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial * <input type="checkbox"/>	Amendment * <input checked="" type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input checked="" type="checkbox"/>	Section 19(b)(3)(A) * <input type="checkbox"/>	Section 19(b)(3)(B) * <input type="checkbox"/>
Pilot <input type="checkbox"/>			Rule		
Extension of Time Period for Commission Action * <input type="checkbox"/>		Date Expires * <input type="text"/>	<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)	
			<input type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)	
			<input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(6)	

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010	Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 806(e)(1) * <input type="checkbox"/>	Section 806(e)(2) * <input type="checkbox"/>
	Section 3C(b)(2) * <input type="checkbox"/>

Exhibit 2 Sent As Paper Document <input type="checkbox"/>	Exhibit 3 Sent As Paper Document <input type="checkbox"/>
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**Description**

Provide a brief description of the action (limit 250 characters, required when Initial is checked \*).

**Contact Information**

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name \*  Last Name \*

Title \*

E-mail \*

Telephone \*  Fax

**Signature**

Pursuant to the requirements of the Securities Exchange Act of 1934,

has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

(Title \*)

Date  Vice President, Regulatory Filings

By

(Name \*)

NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

Justin Byrne, jbyrne@theocc.com

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFF website.

**Form 19b-4 Information \***

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications**

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Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire**

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Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

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The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

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

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Form 19b-4

Proposed Rule Change

by

THE OPTIONS CLEARING CORPORATION

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

**Partial Amendment No. 2 to SR-OCC-2018-008**

The Options Clearing Corporation (“OCC”) is filing this partial amendment (“Amendment No. 2”) to proposed rule change filing SR-OCC-2018-008, as modified by Amendment No. 1, which concerns proposed changes to OCC’s Clearing Fund (“Initial Filing”).<sup>1</sup>

This Amendment No. 2 would make a number of clarifying and conforming changes in connection with the Initial Filing. Specifically, the proposed amendment would (1) revise Article VI, Section 27 of the OCC By-Laws to reflect the relocation of OCC’s Clearing Fund-related By-Law provisions into Chapter X of OCC’s Rules, (2) add an Interpretation and Policy to proposed Rule 1001 to clarify the applicability of the 5% month-over-month limitation in the reduction of Clearing Fund size to the first resizing of the Clearing Fund under the newly proposed methodology, and (3) clarify the implementation date of the proposed changes in the filing.

**1. Conforming Changes to Article VI, Section 27 of the By-Laws**

OCC proposes to amend the Initial Filing to make additional conforming changes to Article VI, Section 27 of the By-Laws to reflect the relocation of OCC’s Clearing Fund-related By-Laws into Chapter X of OCC’s Rules. The proposed changes concerning Article VI, Section 27 of the By-Laws are set forth below.

OCC proposes the following amendment to the language on pages 55 (19b-4) and 143 (Exhibit 1A) of the Initial Filing. Material proposed to be added to the Initial Filing is marked in underlined text. Material proposed to be deleted is marked in strikethrough text.

Additionally, OCC proposes to ~~amend~~update certain cross references in the definition of “Clearing Fund” in Article I ~~of the By-Laws;~~ and Article V, Section 3 of the ~~By-Laws; and Article VI, Section 27 of the By-Laws~~ to reflect the fact that OCC’s Clearing Fund-related provisions would now be contained in Chapter X of the Rules. In addition, OCC proposes to change references to “Chapter 11” of the Rules in Article VI, Section 27 of OCC’s By-Laws to “Chapter XI” To conform the references to OCC’s Rules. OCC proposes conforming changes to Rule 1106 to reflect the reorganization of Article VIII of the By-Laws into Chapter X of the Rules. OCC also proposes to amend Rule 609 to change the term “securities” to “contracts” to clarify that its authority to call for intra-day margin also applies to non-securities products cleared by OCC.

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<sup>1</sup> On May 30, 2018, OCC filed a proposed rule change with the Securities and Exchange Commission (“Commission”) concerning proposed changes to OCC’s Clearing Fund. On June 7, 2018, OCC filed Amendment No. 1 to the proposed rule change to correct formatting errors in Exhibits 5A and 5B without changing the substance of the proposed rule change. See Securities Exchange Act Release No. 34-83406 (June 11, 2018), 83 FR 28018 (June 15, 2018) (SR-OCC-2018-008).

OCC also proposes to amend the proposed rule text in Exhibit 5A on pages 291-292 of the Initial Filing to update cross-references in Article VI, Section 27 of the By-Laws. Material proposed to be added to OCC's By-Laws as currently in effect is marked in underlined text. Material proposed to be deleted is marked in strikethrough text.

## ARTICLE VI - CLEARANCE OF CONFIRMED TRADES

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### Close Out Netting

#### SECTION 27.

\* \* \*

(j) *Clearing Fund*. Any unused portion of a Clearing Member's Clearing Fund contribution shall be returned to the Clearing Member or held for distribution to the persons entitled thereto under applicable law, as appropriate, at such time as the Corporation has determined (1) that it has been fully reimbursed for losses and expenses arising from any of the circumstances detailed in ~~Article VIII, Section 5(a)~~ Rule 1006(a)(i) - (vi) and, subject to the restriction set forth therein, ~~Section 5(b)~~ Rule 1006(c); and (2) that it is extremely unlikely that the Corporation will incur additional losses and expenses reimbursable from the Clearing Fund.

\* \* \*

### 2. Proposed Clarifications to Rule 1001(a)

OCC proposes to amend the Initial Filing to add new Interpretation and Policy .01 to Rule 1001 to clarify that the proposed limitation in the reduction of monthly Clearing Fund size (i.e., that the size of the Clearing Fund for a given month shall not decrease by more than five percent from the prior month) would not apply to the first monthly sizing of the Clearing Fund using the new methodology proposed in the Initial Filing. The proposed changes concerning Rule 1001 are set forth below.

OCC would amend the following language in the carryover paragraph on pages 39-40 (19b-4) and the last full paragraph on page 127 (Exhibit 1A) of the Initial Filing. Material proposed to be added to the Initial Filing is marked in underlined text. Material proposed to be deleted is marked in strikethrough text.

OCC also proposes to adopt rules imposing certain anti-procyclical measures for its monthly Clearing Fund sizing process. Under proposed Rule 1001(a), the size of the Clearing Fund would not be permitted to decrease more than 5% from month-to-month to avoid procyclicality. This limitation, which is also reflected in the proposed Policy and

Methodology Description, is designed to promote stability and to prevent the Clearing Fund from decreasing rapidly when a previous peak falls out of the look-back period. OCC also would adopt Interpretation and Policy .01 to clarify that this restriction would not take effect for a period of one month following the adoption of the proposed change because OCC intends to apply to the new Clearing Fund sizing process going forward under the newly proposed methodology and not to the initial changes to OCC's Clearing Fund size resulting from the implementation of the new methodology.

OCC also would amend the proposed rule text in Exhibit 5B on page 308 of the Initial Filing to add new Interpretation and Policy .01. Material proposed to be added to OCC's Rules as currently in effect is marked in underlined text. Material proposed to be deleted is marked in strikethrough text.

## THE OPTIONS CLEARING CORPORATION

### RULES

#### Chapter X - Clearing Fund Contributions

#### RULE 1001 - Size of Clearing Fund

\* \* \*

#### ...Interpretations and Policies:

.01 Notwithstanding any other provisions of this Rule 1001, the last sentence of Rule 1001(a) shall not take effect for a period of one month following the adoption of this Rule.

\* \* \*

#### 3. Clarification Concerning Proposed Implementation Date

Finally, OCC proposes to clarify the implementation timing of the proposed changes. OCC would insert the following statement at the end of Item 1 on page 6 of the 19b-4 and the end of Item I on page 94 of Exhibit 1A of the Initial Filing. Material proposed to be added to the Initial Filing is marked in underlined text. Material proposed to be deleted is marked in strikethrough text.

Contingent upon OCC receiving all necessary regulatory approvals, OCC would implement the proposed changes described herein on September 1, 2018, which would coincide with the September 2018 sizing of the Clearing Fund.

The partial amendment would not change the purpose of or statutory basis for the proposed rule change. All other representations in the Initial Filing remain as stated therein and no other changes are being made.

**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:** \_\_\_\_\_

**Justin W. Byrne**

**Vice President, Regulatory Filings**