

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-83714; File No. SR-OCC-2018-803)

July 26, 2018

Self-Regulatory Organizations; The Options Clearing Corporation; Notice of No Objection to Advance Notice, as Modified by Amendments No. 1 and 2, Concerning Proposed Changes to The Options Clearing Corporation's Stress Testing and Clearing Fund Methodology

I. INTRODUCTION

On May 30, 2018, The Options Clearing Corporation ("OCC") filed with the Securities and Exchange Commission ("Commission") advance notice SR-OCC-2018-803 ("Advance Notice") pursuant to Section 806(e)(1) of Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, entitled Payment, Clearing and Settlement Supervision Act of 2010 ("Act")¹ and Rule 19b-4(n)(1)(i)² under the Securities Exchange Act of 1934 ("Exchange Act")³ to propose 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").⁴ 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

¹ 12 U.S.C. 5465(e)(1).

² 17 CFR 240.19b-4(n)(1)(i).

³ 15 U.S.C. 78a et seq.

⁴ See Notice of Filing infra note 6, at 83 FR 31594.

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.

On June 7, 2018, OCC filed Amendment No. 1 to the Advance Notice.⁵ The Advance Notice, as amended, was published for public comment in the Federal Register on July 6, 2018.⁶ On July 11, 2018, OCC filed Amendment No. 2 to the Advance Notice.⁷ The Commission received five comment letters in support of the proposal contained in the Advance Notice.⁸ This

⁵ In Amendment No. 1, OCC corrected formatting errors in Exhibits 5A and 5B without changing the substance of the proposed rule change.

⁶ Securities Exchange Act Release No. 83561 (Jun. 29, 2018), 83 FR 31594 (Jul. 6, 2018) (“Notice of Filing”). On May 30, 2018, OCC also filed a related proposed rule change (SR-OCC-2018-008) with the Commission pursuant to Section 19(b)(1) of the Exchange Act and Rule 19b-4 thereunder, seeking approval of changes to its rules necessary to implement the Advance Notice (“Proposed Rule Change”). 15 U.S.C. 78s(b)(1) and 17 CFR 240.19b-4, respectively. The Proposed Rule Change was published in the Federal Register on June 15, 2018. Securities Exchange Act Release No. 83406 (Jun. 11, 2018), 83 FR 28018 (Jun. 15, 2018).

⁷ In Amendment No. 2, OCC made three non-substantive changes to the proposal. Specifically, OCC (1) updated a cross-reference in Article VI, Section 27 of the OCC By-Laws to reflect the relocation of OCC’s clearing fund-related rules, (2) added an Interpretation and Policy to proposed Rule 1001 to clarify the applicability of the 5 percent month-over-month limitation in the reduction of clearing fund size is not intended to apply to the initial changes in to OCC’s clearing fund sizing resulting from implementation of the proposed methodology, and (3) clarified an implementation date of September 1, 2018 for the proposed changes in the filing.

⁸ See letter from Andrej Bolkovic, CEO, ABN AMRO Clearing Corporation LLC (“AACC”), dated June 26, 2018, to Brent Fields, Secretary, Commission (AACC Letter I); letter from Chris Concannon, President and COO, Cboe Global Markets (“CBOE”), dated July 6, 2018, to Brent Fields, Secretary, Commission (CBOE Letter I); letter from Matthew R. Scott, President, Merrill Lynch Professional Clearing Corp. (“MLPRO”), dated July 6, 2018, to Brent J. Fields, Secretary, Commission (MLPRO Letter I); letter

publication serves as notice of no objection to the Advance Notice.

II. BACKGROUND

The Advance Notice concerns proposed changes to OCC's By-Laws⁹ and Rules,¹⁰ the formalization of the substantially new Policy, and the adoption of OCC's new Methodology Description.¹¹ According to OCC, the changes comprising the Advance Notice are primarily designed to enhance OCC's overall resiliency, particularly with respect to the level of OCC's pre-funded financial resources.¹²

As enumerated in the Notice of Filing, the specific modifications that OCC proposes are as follows: (1) reorganize, restate, and consolidate the provisions of OCC's By-Laws and Rules relating to the clearing fund into a 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

from Kurt Eckert, Partner, Wolverine Execution Services ("WEX"), dated July 12, 2018, to Brent Fields, Secretary, Commission (WEX Letter I); and letter from Mark Dehnert, Managing Director, Goldman Sachs & Co. LLC ("GS"), dated July 17, 2018, to Brent J. Fields, Secretary, Commission (GS Letter I), available at <https://www.sec.gov/comments/sr-occ-2018-008/occ2018008.htm>.

Since the proposal contained in the Advance Notice was also filed as a proposed rule change, all public comments received on the proposal are considered regardless of whether the comments are submitted on the proposed rule change or the Advance Notice.

⁹ OCC's By-Laws are available at https://www.theocc.com/components/docs/legal/rules_and_bylaws/occ_bylaws.pdf.

¹⁰ OCC's Rules are available at https://www.theocc.com/components/docs/legal/rules_and_bylaws/occ_rules.pdf.

¹¹ See Notice of Filing, 83 FR at 31594.

¹² See id.

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 proposed Policy and Methodology Description; (5) document governance, monitoring, and review processes related to the 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 from \$150,000 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; (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, including retiring OCC’s existing Clearing Fund Intra-Month Re-sizing Procedure, Financial Resources Monitoring and Call Procedure, and Monthly Clearing Fund Sizing Procedure, as these procedures would be replaced by the proposed Rules, Policy, and Methodology Description.¹³

The remainder of this section will first provide an overview of OCC’s current process for sizing the clearing fund, followed by a more detailed discussion of the specific changes to that process being proposed in the Advance Notice, with particular focus on the following categories: (a) stress testing; (b) total financial resources; (c) financial resource sufficiency; (d) allocation of clearing fund contributions; and (e) textual clarification and consolidation.

¹³ See id. at 31594-95.

A. OCC's current process for sizing the clearing fund

OCC's process for determining the size of its clearing fund was initially approved in 2011,¹⁴ and enhanced in 2015,¹⁵ resulting in OCC's current process. Currently, OCC resizes its clearing fund at the beginning of each month to maintain financial resources, in excess of margin, to cover its credit exposures to its clearing members. The current process is effectively an extension of OCC's daily margin process, in which OCC calculates what it refers to as the "daily draw" based on observations from its margin model at specific confidence levels each day.¹⁶ OCC tracks the rolling five-day average of these daily draws and, at the beginning of each month, sets the clearing fund size to the sum of (1) the largest five-day rolling average observed over the last three months and (2) a \$1.8 billion buffer.¹⁷

As described in detail below, OCC is proposing three primary changes to the existing approach. First, instead of simply relying on its margin model, OCC would rely on the proposed stress testing framework, including both sizing and sufficiency stress tests. Second, OCC would set the size of its clearing fund based on a Cover 2 Standard. Third, OCC would eliminate the current \$1.8 billion static buffer because it would be obsolete in light of the new sizing stress

¹⁴ See Securities Exchange Act Release No. 65386 (Sep. 23, 2011), 76 FR 60572 (Sep. 29, 2011) (Order Approving Clearing Fund I).

¹⁵ See Securities Exchange Act Release No. 75528 (Jul. 27, 2015), 80 FR 45690 (Jul. 31, 2015) (Order Approving Clearing Fund II).

¹⁶ See Order Approving Clearing Fund I, 76 FR at 60572-60573. Each day, OCC estimates credit exposures under the stressed margin model for two scenarios: the greater of the two estimates is the daily draw. The two scenarios are of (1) the single largest credit exposure that would arise out of the default of a single clearing member group ("idiosyncratic default") and (2) the credit exposure that would arise out of the default of two-randomly selected clearing member groups ("minor systemic default"). See Notice of Filing, 83 FR at 31595.

¹⁷ See Order Approving Clearing Fund II, 80 FR at 45691.

tests and increased coverage afforded by the move to a Cover 2 Standard that, together, would function as a dynamic buffer.

B. Stress testing

OCC proposes to adopt a new stress testing methodology, as detailed in both the proposed Policy and the proposed Methodology Description.¹⁸ OCC believes that its proposed methodology would enable it to measure its credit exposure at a level sufficient to cover potential losses under extreme but plausible market conditions.¹⁹ To do so, OCC proposes to conduct daily stress tests that consider a range of relevant stress scenarios and related price changes, 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.²⁰

The stress scenarios used in OCC's proposed methodology would consist of two types of scenarios: historical scenarios and hypothetical scenarios.²¹ Historical Scenarios would replicate historical events in current market conditions, which include the set of currently existing securities and their prices and volatility levels.²² Hypothetical scenarios, rather than replicating past events, would simulate events in which market conditions change in ways that may have not

¹⁸ See Notice of Filing, 83 FR at 31597.

¹⁹ See id.

²⁰ See id. at 31598.

²¹ See id. Because not all of the underlying securities in current portfolios existed during the events on which historical scenarios are based, OCC has developed methodologies to approximate the past price and volatility movements as appropriate. See id. at 31600.

²² See id. at 31598.

yet been observed.²³ Hypothetical Scenarios, constructed using statistical methods, would generally include price shocks specific to various instruments, such as equity products, volatility products, and fixed income products. Each scenario would represent a draw from a multivariate distribution fitted to historical data regarding the relevant instrument (e.g., returns of the S&P 500).²⁴ In a hypothetical scenario, the shock to a risk driver would be used to determine the relative shock to each associated risk factor (i.e., related underlying security).²⁵ For example, OCC would establish the size of its clearing fund according to a scenario that is based on statistically generated up or down price shocks for the SPX assuming a 1-in-80 year market event.²⁶

OCC's proposed stress testing framework would categorize OCC's inventory of stress tests by each stress test's intended purpose: adequacy, sizing, sufficiency, and informational.²⁷ Specifically, OCC would use the (1) "Adequacy Stress Tests" to determine whether the financial resources collected from all clearing members collectively are adequate to cover OCC's risk tolerance; (2) "Sizing Stress Tests" to establish the monthly size of the clearing fund; (3) "Sufficiency Stress Tests" to monitor whether OCC's credit exposure to the portfolios of

²³ See id.

²⁴ See id. at 31599. Risk drivers are a selected set of securities or market indices (e.g., the Cboe S&P 500 Index ("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. See id. at 31597, n. 26. The term risk factor refers 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. See id.

²⁵ See id. at 31598.

²⁶ See id. at 31599.

²⁷ See id. at 31600.

individual clearing member groups is at a level sufficiently large enough 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) “Informational Stress Tests” to 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.²⁸

C. Total financial resources

As noted above, OCC proposes to (i) to adopt a new clearing fund methodology, which would be underpinned by a new scenario-based one-factor risk model stress testing approach,²⁹ modify the coverage level of OCC’s clearing fund sizing requirement to a Cover 2 Standard; (iii) provide for certain anti-procyclical limitations on the reduction in clearing fund size from month to month; and (iv) reduce from five business days to two business days the timeframe within which clearing members are required to satisfy clearing fund deficits due to monthly or intra-month resizing.³⁰

1. Proposal to change the monthly clearing fund size calculation

As discussed above, OCC proposes to replace the methodology by which it determines the monthly clearing fund size with an approach based on hypothetical stress scenarios that assume SPX shocks (up and down) associated with a 1-in-80-year market event.³¹ Under the

²⁸ See id. at 31600-02.

²⁹ OCC detailed the new methodology in the proposed Policy and Methodology Description.

³⁰ See Notice of Filing, 83 FR at 31596.

³¹ See id. at 31599.

proposal, OCC would continue determining the size of its clearing fund each month based on the peak-five daily rolling average of estimated stress exposures; however, such exposures would be based on the output from OCC's stress testing framework going forward as opposed to the margin-derived approach described above.³²

As its benchmark for identifying extreme but plausible market conditions, OCC proposes to adopt a credit risk tolerance defined by OCC's largest potential aggregate credit exposure to two clearing member groups under a 1-in-50-year hypothetical market event as opposed to the greater of exposures arising under an idiosyncratic default or a minor systemic default.³³ OCC further proposes to base its daily draw on the aggregate credit exposures estimated under a 1-in-80-year hypothetical market event.³⁴ Additionally, OCC proposes to size the clearing fund to a Cover 2 Standard.³⁵

OCC believes that sizing the clearing fund to cover a 1-in-80-year event would provide sufficient coverage in excess of the exposures estimated under a 1-in-50-year event to justify no longer collecting the \$1.8 prudential margin of safety.³⁶

³² See id. at 31600. Specifically, OCC would identify its exposures under a 1-in-80-year hypothetical event. See id.

³³ See id. at 31597. As discussed above, OCC's hypothetical stress scenarios represent draws from a fitted distribution of 2-day log returns for a given risk driver. OCC noted in its proposal that a 1-in-50-year hypothetical market event corresponds to a 99.9921 percent confidence interval under OCC's chosen distribution of 2-day logarithmic S&P 500 index returns. See id., n. 25.

³⁴ See id. at 31600.

³⁵ See id. at 31597.

³⁶ See id., n. 23.

2. Proposal to limit reductions in clearing fund size from month to month

Currently, OCC does not constrain month-over-month changes in the size of the clearing fund. OCC proposes to adopt two limitations on month-over-month decreases in the size of the clearing fund. First, OCC proposes to prohibit a clearing fund decrease of more than 5 percent month-over-month.³⁷ Second, OCC proposes to limit the clearing fund decreases based on its daily monitoring of OCC's financial resources. When determining the size of the clearing fund at the beginning of a given month, OCC would not allow that size to be less than 90 percent of the peak credit exposures estimated under the stress tests used for daily monitoring during the last five business days of the preceding month.³⁸ These limitations are designed to reduce the potential for cyclical movements in the size of the clearing fund, as well as reduce the need for OCC to call for additional financial resources intra-month.³⁹

3. Timing of clearing fund contributions

In addition to revising the methodology for sizing OCC's total financial resources, OCC proposes generally to reduce the time in which each clearing member must make its clearing fund contribution.⁴⁰ Clearing members currently have five business days to satisfy a clearing fund deficiency arising out of the monthly sizing or intra-month resizing processes. OCC proposes to reduce that time to two business days.⁴¹ OCC also proposes to require clearing

³⁷ See id. at 31603.

³⁸ See id. As discussed below, OCC proposes to monitor the sufficiency of its financial resources daily by comparing the size of the clearing fund to the output of several historical stress tests.

³⁹ See id.

⁴⁰ See id. at 31605.

⁴¹ See id.

members to satisfy any clearing fund deficit resulting from a decrease in the value of the clearing member's existing contribution within one hour of notification by OCC.⁴²

D. Financial resource sufficiency

As noted above, OCC proposes to (i) adopt a new clearing fund methodology, as detailed in the newly-proposed Policy and Methodology Description and (ii) document governance, monitoring, and review processes related to the clearing fund and stress testing.⁴³ Proposed changes to OCC's clearing fund methodology include the assessment of OCC's clearing fund against a wide range of historical scenarios.⁴⁴

1. Proposal to monitor the sufficiency of OCC's financial resources

Currently, OCC monitors the sufficiency of its financial resources daily by estimating whether the size of the clearing fund is sufficient to cover a maximum potential loss from a simulated idiosyncratic default.⁴⁵ Under its current procedures, when OCC observes credit exposures estimated under the idiosyncratic default in excess of 75 percent of the clearing fund size, OCC issues a margin call against the clearing member group generating the credit exposures.⁴⁶ The size of such a margin call is the difference between the idiosyncratic default

⁴² See id.

⁴³ See id. at 31596.

⁴⁴ See id.

⁴⁵ See id. at 31595-96. As noted above, an idiosyncratic default is one of the two scenarios that OCC currently uses to determine the size of the clearing fund each month. See supra note 16. Specifically, the single largest credit exposure that would arise out of the default of a single clearing member group.

⁴⁶ See id. at 31595.

exposure and the base clearing fund amount.⁴⁷ 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 risk to OCC.⁴⁸ OCC may limit the size of the margin call to each clearing member to the lesser of \$500 million or 100 percent of such clearing member's net capital.⁴⁹

OCC's current procedures also call for increases to the total size of the clearing fund in more extreme scenarios. When OCC observes credit exposures estimated under the idiosyncratic default⁵⁰ exceeding 90 percent of the clearing fund size OCC must, under its procedures, increase the size of the clearing fund.⁵¹ The size of the increase to the clearing fund is the greater of \$1 billion or 125 percent of the difference between the idiosyncratic default exposure and the clearing fund.⁵²

OCC proposes to revise this process by replacing the above-described idiosyncratic default approach with an approach that compares the size of the clearing fund to the exposures estimated under a set of historical scenario stress tests ("Sufficiency Stress Tests").⁵³ The Sufficiency Stress Tests proposed by OCC include the largest market moves up and down during

⁴⁷ See id. As noted above in section II.A., the base clearing fund amount is the size of the clearing fund less the \$1.8 billion prudential margin of safety.

⁴⁸ See id., n. 13.

⁴⁹ See id. at 31595.

⁵⁰ OCC would reduce the size of the idiosyncratic default exposure by factoring in margin calls issued due to a breach of the 75 percent threshold described above. See id. at 31596.

⁵¹ See id.

⁵² See id.

⁵³ See id. at 31600.

2008 on a cover 2 basis and the market moves associated with the 1987 market crash on a cover 1 basis.⁵⁴

OCC proposes to call for additional margin when it observes that one or more clearing member groups' exposure under a Sufficiency Stress Test exceeds 75 percent of the clearing fund.⁵⁵ Under the proposal, the size of the margin call would be the amount by which the Sufficiency Stress Test exposure exceeds the 75 percent threshold.⁵⁶ Similar to the current process, OCC proposes to retain authority to limit such margin calls to each clearing member to \$500 million or 100 percent of the clearing member's net capital.⁵⁷

OCC also proposes to revise the process for increasing the size of the clearing fund under more extreme scenarios. OCC proposes to increase the size of the clearing fund when it observes a Sufficiency Stress Test exposure in excess of 90 percent of the clearing fund.⁵⁸ Similar to the current process, the size of the clearing fund increase would be the greater of \$1 billion or 125 percent of the difference between the Sufficiency Stress Test exposure and the clearing fund.⁵⁹ OCC also proposes to provide new authority to its Chief Executive Officer, Chief Administrative Officer, and Chief Operating Officer to temporarily increase the size of the

⁵⁴ See id. at 31601. OCC proposes to measure the clearing fund against the two largest exposures under the 2008-like events and the one largest exposure under a 1987-like event. See id.

⁵⁵ See id.

⁵⁶ See id.

⁵⁷ See id. at 31601-02.

⁵⁸ See id.

⁵⁹ See id.

clearing fund, subject to notice and later review by OCC’s Board Risk Committee (“RC”).⁶⁰

Additionally, OCC proposes to add a new threshold at which it would commence enhanced monitoring of a clearing member group.⁶¹ Where OCC observes that a clearing member group’s Sufficiency Stress Test exposure exceeds 65 percent of the clearing fund, OCC would commence enhanced monitoring of, and provide notice to the clearing member group.⁶²

2. Proposal to document governance processes related to the clearing fund and stress testing

OCC proposes to establish, as part of its rules, processes for the governance, monitoring, and review of the stress testing framework and clearing fund methodology described above.⁶³ Such processes would cover daily, monthly, and annual review of OCC’s stress testing framework and clearing fund methodology.

On a daily basis, OCC’s staff would monitor the size of the clearing fund against OCC’s risk tolerance and sufficiency stress tests.⁶⁴ OCC staff would be required to report material issues to the Executive Vice President of OCC’s Financial Risk Management group (“EVP-FRM”). The EVP-FRM would further escalate issues with OCC management as applicable.

On a monthly basis, OCC’s staff would provide reports and analyses of the daily stress

⁶⁰ See id. at 31602.

⁶¹ See id. at 31601. Based on OCC’s procedures, staff understands that such monitoring would entail escalation within OCC’s Financial Risk Management group noting the relevant clearing member, the future potential for breach of the 75 percent margin call threshold, and a summary of the apparent risk drivers resulting in the stress exposures.

⁶² See id.

⁶³ See id. at 31602.

⁶⁴ See id.

tests to OCC’s Management Committee and RC.⁶⁵ OCC’s staff would also be responsible for conducting a comprehensive analysis of stress test results, scenarios, models, parameters, and assumptions monthly or more frequently when the products cleared or markets served by OCC display high volatility or become less liquid or when the size or concentration of positions held by OCC’s participants increases significantly.⁶⁶

On an annual basis, OCC’s Model Validation Group would be required to perform a model validation of OCC’s clearing fund methodology.⁶⁷ The RC would review such validations.⁶⁸ The RC would also be responsible for annual review and approval of the Policy.⁶⁹

E. Allocation of clearing fund contributions

As noted above, OCC proposes to (i) increase the minimum clearing fund contribution requirement for clearing members to \$500,000 and (ii) modify OCC’s allocation weighting methodology for clearing fund contributions.⁷⁰

1. Proposal to increase the minimum clearing fund contribution

Currently, the minimum amount a clearing member must contribute to OCC’s clearing fund (the “fixed amount”) is \$150,000.⁷¹ OCC proposes to increase the fixed amount to

⁶⁵ See id. at 31602-03.

⁶⁶ See id.

⁶⁷ See id. at 31603.

⁶⁸ See id.

⁶⁹ See id.

⁷⁰ See id. at 31596.

⁷¹ See id. at 31604. The initial amount that a new clearing member must contribute to OCC’s clearing fund is also \$150,000. See id. at 31603.

\$500,000.⁷² The minimum contribution requirement has been in place since June 5, 2000,⁷³ and has remained static while the average size of OCC's clearing fund has increased significantly.⁷⁴ OCC also noted that other CCPs' minimum requirements are well in excess of OCC's minimum contribution requirement.⁷⁵ OCC analyzed the impact of the proposed change on its clearing members and discussed such impacts with the potentially affected clearing members, the majority of which did not express concerns over the proposed increase.⁷⁶

2. Proposal to modify the clearing fund allocation weighting

In addition to the fixed amount described above, most clearing members are required to contribute an additional amount to OCC's clearing fund (the "variable amount"). The variable amount is based on the weighted average of each clearing member's proportionate share of total risk, open interest, and volume.⁷⁷ Currently, OCC uses the following weighting in its allocation of clearing fund requirements: 35 percent total risk; 50 percent open interest; and 15 percent volume.⁷⁸ OCC proposes to modify the allocation weighting as follows: 70 percent total risk; 15

⁷² See id. at 31604. OCC similarly proposes to increase the initial contribution. See id. at 31603.

⁷³ See id. (citing Securities Exchange Act Release No. 42897 (June 5, 2000), 65 FR 36750 (June 9, 2000) (SR-OCC-99-9)).

⁷⁴ See id. at 31603-04.

⁷⁵ See id. at 31603.

⁷⁶ See id. at 31604.

⁷⁷ See id. Total risk refers to a clearing member's margin requirement. See id., n. 44. Additionally, the current methodology calculates volume based on executed volume. See id. at 31604.

⁷⁸ See id.

percent open interest; and 15 percent volume.⁷⁹

F. Textual clarification and consolidation

Finally, as noted above, OCC proposes to (i) 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; (ii) provide additional clarity in OCC's Rules regarding certain anti-procyclicality measures in OCC's margin model; and (iii) make a number of other non-substantive clarifying, conforming, and organizational changes to OCC's By-Laws, Rules, and filed procedures, including retiring OCC's existing Clearing Fund Intra-Month Re-sizing Procedure, Financial Resources Monitoring and Call Procedure, and Monthly Clearing Fund Sizing Procedure, as these procedures would be replaced by the proposed Rules, Policy, and Methodology Description.⁸⁰

1. Proposal to reorganize, restate, and consolidate certain rule text

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.⁸¹ 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.⁸² Given the scope of changes described above, OCC believes that it is appropriate to make such revisions at

⁷⁹ See id. The definition of total risk would remain the same, but OCC would calculate volume based on cleared volume as opposed to executed volume. See id.

⁸⁰ See id. at 31596.

⁸¹ See id.

⁸² See id.

this time.⁸³

The changes to the provisions currently residing in OCC's 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; however, changes to OCC's rules generally require only a majority vote of OCC's Board of Directors.⁸⁴ OCC proposes to amend its By-Laws to maintain the existing requirements for modifying those rules that would be moved from Article VIII of OCC's By-Laws to Chapter X of its Rules.⁸⁵

2. Proposal to add rule text clarifying anti-procyclicality measures in OCC's margin model

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.⁸⁶ OCC now proposes to amend its Rule 601(c) to reflect this practice.⁸⁷ OCC believes that the proposed change would provide more clarity and transparency in its rules.⁸⁸

3. Proposal to make other non-substantive changes to OCC's rules

OCC proposes a number of 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

⁸³ See id.

⁸⁴ See id.

⁸⁵ See id. at 31596-97.

⁸⁶ See id. at 31606.

⁸⁷ See id.

⁸⁸ See id.

Financial Resources and the relocation of OCC’s Clearing Fund-related By-Laws into Chapter X of the Rules.⁸⁹

In addition to the relocation of rules described above, OCC would also make minor, non-substantive revisions. For example, OCC would replace text referencing “computed contributions to the Clearing Fund” and “as fixed at the time” with text stating “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.⁹⁰

Further, 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.⁹¹

Finally, OCC proposes to replace procedures regarding its processes for (i) the monthly resizing of its Clearing Fund, (ii) the addition of financial resources, and (iii) the execution of any intra-month resizing of the Clearing Fund.⁹² OCC proposes to retire its existing procedures because the relevant rule requirements would be maintained in the proposed rules as well as the Clearing Fund Methodology Policy and Clearing Fund Methodology Description included as part of the Advance Notice.⁹³

⁸⁹ See id.

⁹⁰ See id. at 31607, n. 52.

⁹¹ See id. at 31607.

⁹² See id. at 31607-08.

⁹³ See id. at 31608.

III. SUMMARY OF COMMENTS

As noted above, the Commission received five comment letters – AACC Letter I, CBOE Letter I, MLPRO Letter I, WEX Letter I, and GS Letter I – supporting the changes proposed in the Advance Notice.⁹⁴ Two of the commenters urge the Commission to approve the proposal as expeditiously as possible.⁹⁵ AACC believes that the proposal would remediate two problems with the current clearing fund methodology: (1) OCC's current clearing fund sizing methodology failing to contain sufficient anti-procyclicality measures, and (2) OCC's current clearing fund contribution allocation methodology failing to appropriately incentivize clearing member risk management.⁹⁶

Regarding the clearing fund sizing methodology, AACC believes that the proposal would implement a number of measures intended to provide stability and consistency to the size of OCC's clearing fund.⁹⁷ Specifically, AACC supports (1) sizing the clearing fund based on a variety of risk factors, and (2) testing the size of the clearing fund on a daily basis against extreme but plausible market events, thereby lowering the likelihood that OCC's clearing fund would be insufficient to protect OCC and market participants in the event of a clearing member default.⁹⁸ MLPRO believes that the proposed changes would create a more transparent and predictable model.⁹⁹ Similarly, GS supports OCC's proposal to include more comprehensive

⁹⁴ See supra note 8.

⁹⁵ AACC Letter I at 1; MLPRO Letter I at I.

⁹⁶ AACC Letter I at 1.

⁹⁷ Id. at 2.

⁹⁸ Id. at 2-3.

⁹⁹ MLPRO Letter I at 2.

testing scenarios by including observed market events over a longer historical period, which would improve the overall quality of OCC's stress testing and strengthen OCC's ability to model risk scenarios.¹⁰⁰ Additionally, WEX believes that the proposed changes, specifically changes regarding how the monthly clearing fund sizing process will address anti-procyclicality, should help reduce operational issues related to a clearing member's obligations increasing and decreasing.¹⁰¹

AACC states that, from a theoretical perspective, OCC's proposed sizing methodology constitutes a significant improvement over the current sizing methodology in that the size of the clearing fund would be less influenced by changes in volatility because OCC is introducing other risk drivers into the sizing methodology as well as monitoring and augmenting such risk drivers on a daily basis based on market conditions.¹⁰² AACC also comments that the proposal would cause the size of OCC's clearing fund to become more stable because OCC would test for adequacy and sufficiency on a daily basis using a series of historical and hypothetical stress tests that are rooted in extreme but plausible market events.¹⁰³

¹⁰⁰ GS Letter I at 2. In its letter, GS refers to OCC's movement to a 1-in-80-year period from a 1-in-50-year model. The Commission notes that OCC's current process is not based on a 1-in-50-year model, and that OCC is now proposing to adopt a new risk tolerance based on a 1-in-50-year hypothetical event. See Notice of Filing, 83 FR at 31596. Further, OCC proposes to base the size of the clearing fund on the aggregate credit exposures estimated under a 1-in-80-year hypothetical market event (as opposed to an historical market event). See id. at 31600.

¹⁰¹ WEX Letter I at 1.

¹⁰² AACC Letter I at 3.

¹⁰³ Id.

Commenters also believe that the proposal would improve OCC's risk models by correcting existing shortcomings.¹⁰⁴ CBOE comments that the adoption of a Cover 2 standard would ensure that the size of the clearing fund is sufficient to protect OCC against losses from the simultaneous default of its two largest Clearing Members under extreme, but plausible market conditions.¹⁰⁵ GS also agrees with OCC's proposal to adopt a Cover 2 Standard.¹⁰⁶ MLPRO comments that the adoption of a Cover 2 standard in establishing a new model to measure the adequacy of the clearing fund and address potential default scenarios would address issues that MLPRO identifies with OCC's current model.¹⁰⁷ MLPRO also supports OCC's (1) adopting risk tolerance and stress testing assumptions that are developed from extreme, but plausible scenarios, and (2) calibrating individual equity price movements to the price shock for the applicable equity index to address issues with the current model.¹⁰⁸

Regarding the changes to the clearing fund allocation methodology, commenters believe that the proposal would better align clearing members' required clearing fund contribution to the risk they present to OCC and other market participants.¹⁰⁹ AACC states that the proposed changes would place more emphasis on the economic risk presented by a clearing member's cleared contracts than the operational risk presented by a high volume clearing member, thereby better recognizing that certain types of clearing members present a relatively lower risk to OCC

¹⁰⁴ CBOE Letter I at 1; MLPRO Letter I at 1-2.

¹⁰⁵ CBOE Letter I at 1.

¹⁰⁶ GS Letter I at 2.

¹⁰⁷ MLPRO Letter I at 1-2.

¹⁰⁸ Id.

¹⁰⁹ AACC Letter I at 4; WEX Letter I at 1; GS Letter I at 1.

even though they may represent a higher percentage of overall activity (i.e., clearing members with market-maker and other risk-neutral customers).¹¹⁰ Similarly, WEX supports allocation based on cleared volumes as opposed to executed volumes in consideration of where a position is cleared as opposed to where it is executed.¹¹¹ MLPRO also supports increases the weighting of total risk in the allocation process.¹¹² Commenters also believe that the proposed changes make sense from a default and liquidation perspective.¹¹³

Commenters AACC and WEX believe that the proposed changes would have positive effects on the listed options market.¹¹⁴ Similarly, MLPRO believes that the proposed changes would increase liquidity in the listed options market.¹¹⁵ Additionally, GS believes that the proposed changes will greatly enhance OCC's resiliency and risk management.¹¹⁶

IV. DISCUSSION AND COMMISSION FINDINGS

Although the Act does not specify a standard of review for an advance notice, the stated purpose of the Act is instructive: to mitigate systemic risk in the financial system and promote financial stability by, among other things, promoting uniform risk management standards for SIFMUs and strengthening the liquidity of SIFMUs.¹¹⁷

¹¹⁰ AACC Letter I at 4.

¹¹¹ WEX Letter I at 2.

¹¹² MLPRO Letter I at 2.

¹¹³ AACC Letter I at 4; GS Letter I at 1.

¹¹⁴ AACC Letter I at 5; WEX Letter I at 2.

¹¹⁵ MLPRO Letter I at 1.

¹¹⁶ GS Letter I at 2.

¹¹⁷ See 12 U.S.C. 5461(b).

Section 805(a)(2) of the Act¹¹⁸ authorizes the Commission to prescribe regulations containing risk-management standards for the payment, clearing, and settlement activities of designated clearing entities engaged in designated activities for which the Commission is the supervisory agency. Section 805(b) of the Act¹¹⁹ provides the following objectives and principles for the Commission’s risk-management standards prescribed under Section 805(a):

- to promote robust risk management;
- to promote safety and soundness;
- to reduce systemic risks; and
- to support the stability of the broader financial system.

Section 805(c) provides, in addition, that the Commission’s risk-management standards may address such areas as risk-management and default policies and procedures, among others areas.¹²⁰

The Commission has adopted risk-management standards under Section 805(a)(2) of the Act and Section 17A of the Exchange Act (the “Clearing Agency Rules”).¹²¹ The Clearing Agency Rules require, among other things, each covered clearing agency to establish, implement, maintain, and enforce written policies and procedures that are reasonably designed to meet certain minimum requirements for its operations and risk-management practices on an

¹¹⁸ 12 U.S.C. 5464(a)(2).

¹¹⁹ 12 U.S.C. 5464(b).

¹²⁰ 12 U.S.C. 5464(c).

¹²¹ 17 CFR 240.17Ad-22. See Securities Exchange Act Release No. 68080 (October 22, 2012), 77 FR 66220 (November 2, 2012) (S7-08-11). See also Securities Exchange Act Release No. 78961 (September 28, 2016), 81 FR 70786 (October 13, 2016) (S7-03-14) (“Covered Clearing Agency Standards”). The Commission established an effective date of December 12, 2016, and a compliance date of April 11, 2017, for the Covered Clearing Agency Standards. OCC is a “covered clearing agency” as defined in Rule 17Ad-22(a)(5).

ongoing basis.¹²² As such, it is appropriate for the Commission to review advance notices against the Clearing Agency Rules and the objectives and principles of these risk management standards as described in Section 805(b) of the Act. As discussed below, the Commission believes the proposal in the Advance Notice is consistent with the objectives and principles described in Section 805(b) of the Act,¹²³ and in the Clearing Agency Rules, in particular Rules 17Ad-22(e)(1) and 17Ad-22(e)(4).¹²⁴

A. Consistency with Section 805(b) of the Act

The Commission believes that the proposal contained in OCC's Advance Notice is consistent with the stated objectives and principles of Section 805(b) of the Act. Specifically, as discussed below, the Commission believes that the changes proposed in the Advance Notice are consistent with promoting robust risk management in the area of credit risk, promoting safety and soundness, reducing system risks, and supporting the stability of the broader financial system.¹²⁵

First, as described above, OCC's current process for sizing the clearing fund was established in 2011 and strengthened under a 2015 interim approach. The current process is essentially an extension of OCC's margin model. In general, margin requirements for clearing members are very reactive to market movements and changes in clearing member portfolios. Because OCC's current process for sizing the clearing fund is based on a relatively dynamic daily margin process, the size of the clearing fund can at times be volatile and cyclical in nature.

¹²² 17 CFR 240.17Ad-22.

¹²³ 12 U.S.C. 5464(b).

¹²⁴ 17 CFR 240.17Ad-22(e)(1); 17 CFR 240.17Ad-22(e)(4).

¹²⁵ 12 U.S.C. 5464(b).

The changes proposed in the Advance Notice based the sizing and monitoring of OCC's clearing fund on a stable inventory of stress tests rather than continuing to rely on a dynamic margin model. The Commission believes this new approach would provide OCC with a more precise, rigorous, and stable assessment of the financial resources it would need to hold in its clearing fund to cover its credit risk exposure to its members in extreme but plausible market conditions, which in turn would enhance OCC's overall risk management.

Second, with respect to the robustness of the new stress testing framework itself, the Commission believes that the stress tests proposed in OCC's framework are an improvement over OCC's current approach in this area, as the stress tests comprise a wide range of foreseeable stress scenarios. The scenarios cover historical events as extreme as the 2008 financial crisis and 1987 market crash as well as hypothetical events derived from a dataset of historical S&P returns. OCC's proposed stress testing framework would also include a category of stress tests designed specifically for review of OCC's financial resources against implausible scenarios and reverse stress tests. Such stress tests would not directly affect the total amount of OCC's financial resources, but would facilitate a more forward looking risk management process. Accordingly, while as an ongoing supervisory matter the Commission expects OCC to consider and, as necessary, implement future enhancements to its suite of stress tests, the Commission believes that the suite of stress tests that OCC proposes to establish in its risk management framework pursuant to the Advance Notice represents a material improvement to OCC's current risk management practices for estimating potential future losses in extreme but plausible market conditions.

Third, as described above, OCC proposes to adopt several enhancements to its methodology for determining the size of its clearing fund. OCC proposes to adopt an internal

credit risk tolerance based on hypothetical stress scenarios, which would provide OCC with a benchmark that it believes represents extreme but plausible market conditions. The Commission believes that establishing such a tolerance is a valuable step in accurately estimating the total financial resources necessary to cover OCC's exposures in extreme but plausible market conditions. Next, OCC proposes to set the size of its clearing fund to cover a scenario that is more extreme than its internal tolerance to ensure consistent coverage, which the Commission believes would be another valuable step in accurately estimating OCC's necessary total financial resources. Further, OCC proposes to cover its two largest credit exposures when setting the size of the clearing fund, which goes further than OCC's current practice of covering the greater of OCC's single largest exposure or two random exposures. For the same reasons, the Commission believes this, too, would improve OCC's risk management practices. Finally, OCC proposes to limit the potential reductions in the size of the clearing fund month-over-month. Such limitations would avoid large drops in the clearing fund size over a short period of time and unnecessary reductions followed by immediate calls for additional resources at the beginning of each month. Taken together, the Commission believes that all of these enhancements to the calculation of OCC's clearing fund requirements would enhance OCC's risk management practices and allow it to more accurately estimate the total financial resources necessary to cover its exposures in extreme but plausible market conditions.

Fourth, the proposal discussed above would expand and improve upon the scope of stress scenarios against which OCC monitors its financial resources. Under the proposal OCC would continue to review the size of its clearing fund against exposures under a stress scenario designed to replicate the 1987 market crash, and would also introduce monitoring against other historical scenarios such as the largest market moves up and down observed during the 2008 financial

crisis. In addition, OCC would continue its practice of collecting additional resources in margin collateral and clearing fund requirements where stress exposures exceed 75 percent and 90 percent, respectively, of the size of the clearing fund. Based on a review of the parameters of the scenario replicating the 1987 market crash, the Commission believes that the scenario presents potential losses that are extreme while also plausible in light of their historical basis. Additionally, the Commission believes that the scenario would provide stress exposure estimates that would be meaningful for the monitoring of OCC's total financial resources. The Commission also believes that the introduction of new historical scenarios, such as those replicating the financial crisis, would provide additional depth to the monitoring of OCC's financial resources. The Commission believes, therefore, that the changes proposed in the Advance Notice include the adoption of a wide range of stress scenarios for the testing of OCC's financial resources. Consequently, the Commission believes that the expansion of the scope of stress scenarios, along with the inclusion of a scenario replicating the 1987 market crash, will result in a stress testing framework that promotes robust risk management at OCC.

Fifth, OCC would document its periodic review and analysis of its stress testing framework and clearing fund methodology, which would include (1) daily review of stress test outputs, (2) monthly (or more frequently as needed) analysis of the stress test results, scenarios, models, parameters, and assumptions, and (3) annual validation of the clearing fund methodology. OCC also would clearly define the process for escalating the results of its daily and monthly analyses and require on an annual basis Board level review and approval of the Clearing Fund Methodology Policy. The Commission believes that these governance processes would help ensure that OCC is in a position to continuously monitor, analyze, and adjust as necessary both the stress testing framework and the clearing fund methodology, thereby helping

to ensure the accuracy and reliability of the methodology by which OCC tests the sufficiency of its financial resources.

Taken together, and for the reasons discussed above, the Commission believes that these proposals would promote robust risk management at OCC by better ensuring that OCC maintains sufficient financial resources in excess of margin to enable it to cover a wide range of 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.

By enhancing the precision with which OCC estimates the total financial resources that it must maintain, reducing the time it takes OCC to fund clearing fund contributions, and limiting month-to-month reductions in the size of the clearing fund, the Commission also believes the changes proposed in the Advance Notice promote safety and soundness. The Commission agrees that, by shortening the timeframe within which each clearing member must make its required clearing fund contribution, OCC would be able to better ensure that it is able to obtain the funds owed from clearing members in a timely fashion so that OCC can continue to meet its overall financial resource requirements.¹²⁶ Reducing the period of time between the identification of credit exposures and the collection of collateral to cover such exposures reduces the period of time during which OCC could be under collateralized. Ensuring that OCC is able to obtain collateral in a timely manner promotes safety and soundness. Similarly, limiting large reductions and cyclical swings in the size of OCC's clearing fund reduces the potential for OCC to give up resources only to find that they are necessary to cover its credit exposures to participants. Consequently, the Commission believes that the proposed reduction in funding

¹²⁶ See Notice of Filing, 83 FR at 31605.

time and limitations designed to constrain procyclical changes in the size of the clearing fund promote safety and soundness.

In addition, the Commission believes that the limitations on clearing fund size reductions described above, as well as the proposed allocation methodology changes, are designed to reduce systemic risk and promote the stability of the broader financial system. Reducing the likelihood of procyclical swings in the size of OCC's clearing fund should provide more certainty and stability to OCC's clearing members. For example, such increased certainty should help reduce the risk that clearing members would be surprised and destabilized by a request from OCC for a clearing fund size increase, thereby limiting the likelihood that such requests could destabilize the broader financial system or heighten systemic risk. The Commission believes that the increases of the initial and minimum contributions to the clearing fund are commensurate with the growth of OCC's clearing fund over time.¹²⁷ Finally, the Commission believes that the proposed changes to OCC's allocation weighting will allow OCC to better manage its credit exposures to its clearing members by better aligning each clearing member's contributions to the credit risk it poses to OCC, thereby allowing OCC to better manage its credit exposures to its participants. The Commission believes that increased certainty and the alignment of obligations with risk would both reduce potential systemic risks and promote the stability of the broader financial system by reducing the likelihood of unexpected and potentially destabilizing clearing fund obligations for clearing members.

Finally, the Commission believes that OCC's proposed textual clarifications and reorganization would also support the stability of the broader financial system. The

¹²⁷ OCC's overall clearing fund size has increased significantly since the current initial and minimum contributions were set in 2000. See id. at 31603-04.

reorganization and consolidation of rule provisions related to OCC's clearing fund would enhance the readability of OCC's public-facing rules, and additional clarification of OCC's margin rules would promote transparency by providing the public with information about OCC's risk management processes. The Commission believes that the additional clarity and transparency provided by these proposed change would support the stability of the broader financial system by removing potential sources of confusion or misunderstanding regarding the operations and potential consequences of OCC's risk management processes in respect of the clearing fund.

Accordingly, and for the reasons stated, the Commission believes the changes proposed in the Advance Notice are consistent with Section 805(b) of the Act.¹²⁸

B. Consistency with Rule 17Ad-22(e)(4) Under the Exchange Act

1. Total financial resources

Rules 17Ad-22(e)(4)(i) and (iii) under the Exchange Act requires, among other things, that OCC 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 by, among other things, maintaining financial resources at the minimum to enable OCC 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.¹²⁹

As described above, the proposal includes enhancements to OCC's methodology for

¹²⁸ 12 U.S.C. 5464(b).

¹²⁹ 17 CFR 240.17Ad-22(e)(4)(i) and (iii).

sizing its clearing fund to ensure that it maintains sufficient financial resources, including: (i) adoption of an internal credit risk tolerance that OCC believes represents extreme but plausible market conditions; (ii) sizing the clearing fund to cover credit exposures under scenarios that are more extreme than OCC's risk tolerance, (iii) sizing the clearing fund to cover the default of the two clearing member groups that that would potentially cause the largest aggregate credit exposure for OCC; (iv) limiting the potential reduction in clearing fund size month-over-month; and (v) shortening the time by which each clearing member must fund its clearing fund contribution.

Taken together, the Commission believes that proposed changes described above are designed to improve the process by which OCC sizes its total financial resources and are consistent with the requirements of Rules 17Ad-22(e)(4)(i) and (iii) under the Exchange Act. First, the proposal is designed to cover credit exposures in excess of those posed by any one clearing member group because OCC is proposing to cover the largest aggregate exposure to two clearing member groups. Second, the proposal is designed to cover credit exposures in extreme but plausible market conditions because OCC proposes to size its clearing fund based on scenarios that are more extreme than those that OCC believes to represent extreme but plausible market conditions. Further, based on the Commission's detailed analysis of the relevant scenarios through the supervisory process, the Commission believes that OCC has defined extreme but plausible scenarios in an acceptable manner for the markets served. Finally, the Commission believes that proposal would support the consistent and stable maintenance of an appropriate level of total financial resources by limiting month-over-month reductions in the size of clearing fund and requiring clearing members to make clearing fund contributions within two business days. Accordingly, the Commission believes that the proposed modifications to OCC's

clearing fund sizing methodology are consistent with Exchange Act Rule 17Ad-22(e)(4)(i) and (iii).¹³⁰

2. Financial resource sufficiency

Rule 17Ad-22(e)(4)(vi) under the Exchange Act requires OCC to 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 by testing the sufficiency of its total financial resources available to meet the minimum financial resource requirements under paragraphs Rules 17Ad-22(e)(4)(i) through (iii).¹³¹ Such testing must include (A) conducting stress testing of OCC's total financial resources once each day using standard predetermined parameters and assumptions; (B) 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; (C) 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; and (D) reporting the results of such analyses to appropriate decision makers at OCC, 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

¹³⁰ Id.

¹³¹ 17 CFR 240.17Ad-22(e)(4)(vi) (citing 17 CFR 240.17Ad-22(e)(4)(i)-(iii)).

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 set forth in paragraphs (e)(4)(i) through (iii) of Rule 17Ad-22.¹³² Additionally, pursuant to Rule 17Ad-22(e)(4)(vii) of the Exchange Act, the policies and procedures required under Rule 17Ad-22(e)(4) must include the performance of a model validation of OCC's credit risk models not less than annually or more frequently as may be contemplated by OCC's risk management framework.¹³³

After reviewing and assessing the proposal, the Commission believes that the proposed changes described above are consistent with Rules 17Ad-22(e)(4)(vi) and (vii) under the Exchange Act,¹³⁴ because, among other reasons, (i) they are designed to improve the testing of OCC's financial resources; (ii) expanding the scope of stress scenarios against which OCC monitors its financial resources would increase the likelihood that OCC maintains sufficient financial resources at all times; and (iii) the formalization of OCC's processes for the periodic review and analysis its stress testing framework and clearing fund methodology is designed to support OCC's monitoring of its financial resources.

In addition, the Commission believes that (i) the daily testing of OCC's financial resources against the sufficiency stress tests, including stress tests based on market movements in the 2008 financial crisis and the 1987 market crash included in the proposal would be consistent with the daily stress testing requirements of Rule 17Ad-22(e)(4)(vi)(A), as described above; (ii) the at least monthly analysis of stress test results, scenarios, models, parameters, and

¹³² 17 CFR 240.17Ad-22(e)(4)(vi)(A)-(D).

¹³³ 17 CFR 240.17Ad-22(e)(4)(vii).

¹³⁴ 17 CFR 240.17Ad-22(e)(4)(vi) and (vii).

assumptions, with more frequent review and analysis as required would be consistent with the monthly comprehensive analysis requirements set forth in Rule 17Ad-22(e)(4)(vi)(B) and (C) as described above; and (iii) the annual validation of OCC's clearing fund methodology discussed in more detail above would be consistent with model validation requirements of Rule 17Ad-22(e)(4)(vii). The proposal also contemplates the reporting and escalation of such testing, analyses, and validations to OCC's management and Board of Directors, which the Commission believes would be consistent with the reporting requirements of Rule 17Ad-22(e)(4)(vi)(D).

Accordingly, taken together and for the reasons discussed above, the Commission believes that the proposed stress testing and clearing fund methodology governance changes are consistent with Exchange Act Rules 17Ad-22(e)(4)(vi) and (vii).¹³⁵

3. Proposal to modify the clearing fund allocation methodology

As noted above, Rule 17Ad-22(e)(4) under the Exchange Act requires that OCC establish, implement, maintain, and enforce written policies and procedures reasonably designed to, among other things, effectively manage its credit exposures to participants.¹³⁶

As discussed above, OCC manages its credit exposures not covered by margin through the allocation of clearing fund requirements to its clearing members. OCC proposes to determine the size of its clearing fund based on the measurement of its credit exposures under hypothetical stress scenarios, and to monitor such exposures under historical stress scenarios. OCC also proposes to increase the initial and minimum clearing fund contribution amounts from \$150,000 to \$500,000, and to modify the allocation weighting used to determine the variable amount that most clearing members contribute to the clearing fund. Specifically, under the

¹³⁵ Id.

¹³⁶ 17 CFR 240.17Ad-22(e)(4).

proposal, the proposed clearing fund contribution requirements would be based on an allocation methodology of 70 percent of total risk, 15 percent of open interest and 15 percent of open interest (as opposed to the current weighting of 35 percent total risk, 50 percent open interest, and 15 percent volume).

The Commission believes that the changes described above are reasonably designed to improve OCC's management of its credit exposures to participants. First, OCC's overall clearing fund size has increased significantly since the current initial and minimum contributions were set in 2000 and OCC's requirements are lower than the minimum requirements imposed by other CCPs. The Commission believes that the proposed changes to OCC's initial and minimum clearing fund contribution amounts are designed to better manage the risks posed by clearing members with minimal open interest, and are commensurate with the growth of OCC's clearing fund over time. The Commission also believes that the changes to OCC's allocation weighting will allow OCC to better manage its credit exposures to its clearing members by better aligning each clearing member's contributions to the credit risk it poses to OCC, thereby allowing OCC to better manage its credit exposures to its participants.

Accordingly, based on the foregoing, the Commission believes that the proposed changes pertaining to the sizing, monitoring, and allocation of clearing fund requirements are consistent with Exchange Act Rule 17Ad-22(e)(4).¹³⁷

C. Consistency with Rule 17Ad-22(e)(1) Under the Exchange Act

Rule 17Ad-22(e)(1) under the Exchange Act requires that OCC 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

¹³⁷

Id.

relevant jurisdictions.¹³⁸ The Commission has stated that, in establishing and maintaining policies and procedures to address legal risk, a covered clearing agency generally should consider whether its rules, policies and procedures, and contracts are clear, understandable, and consistent with relevant laws and regulations.¹³⁹

The Commission believes that the proposed consolidation and reorganization of OCC's Rules described above would improve readability by locating all rules related to the clearing fund in one place, thereby enhancing the clarity, transparency, consistency, and understandability of OCC's Rules related to the clearing fund. Additionally, by amending the Rules to accurately reflect OCC's current margin practices, the Commission believes OCC's Rules will be more transparent and understandable.

Accordingly, the Commission believes that the proposed textual reorganization and clarifications are consistent with Rule 17Ad-22(e)(1).¹⁴⁰

¹³⁸ 17 CFR 240.17Ad-22(e)(1).

¹³⁹ Covered Clearing Agency Standards at 70802.

¹⁴⁰ 17 CFR 240.17Ad-22(e)(1).

V. CONCLUSION

IT IS THEREFORE NOTICED, pursuant to Section 806(e)(1)(I) of the Payment Supervision Act, that the Commission DOES NOT OBJECT to Advance Notice (SR-OCC-2018-803) and that OCC is AUTHORIZED to implement the proposed change.

By the Commission.

Robert W. Errett
Deputy Secretary