Required fields are shown with yellow backgrounds and asterisks.

Page 1 of * 243		SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4			File No. * SR 2022 - * 015 Amendment No. (req. for Amendments *)		
Filing by National Securities Clearing Corporation							
Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934							
Initial * ✓	Amendment *	Withdrawal	Section 19(b)(2) * Section 19(b)(3)(A) * Section 19(b)(3)(B) *		
Pilot	Extension of Time Period for Commission Action *	Date Expires *		Rule 19b-4(f)(1) 19b-4(f)(2) 19b-4(f)(3)	19b-4(f)(4) 19b-4(f)(5) 19b-4(f)(6)		
Notice of pro Section 806(ment, Clearing, and Settlement Section 806(e)(2) *	Secu		Submission pursuant to the Act of 1934		
Exhibit 2 Sent As Paper Document Exhibit 3 Sent As Paper Document							
Description Provide a brief description of the action (limit 250 characters, required when Initial is checked *). Certain Enhancements to the Gap Risk Measure and the VaR Charge							
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 * Last Name *							
Title *							
E-mail * RuleFilingAdmin@dtcc.com							
Telephone *		Fax]		
Signature Pursuant to the requirements of the Securities Exchange of 1934, National Securities Clearing Corporation has duty caused this filing to be signed on its behalf by the undersigned thereunto duty authorized.							
Date By	12/02/2022		(Title *)			
form. A digital s	the signature block at right will initiate digitally ignature is as legally binding as a physical sig is form cannot be changed.		0	Date: 2022.12.02 14:24:35 -05'00'			

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549						
For complete Form 19b-4 instructions please refer to the EFFS 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.					
RF Narrative - SR-NSCC-2022-015 (C						
NF Ivalialive - 5N-11500-2022-015 (C						
	The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as					
Exhibit 1 - Notice of Proposed Rule Change *	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					
Add Remove View	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					
RF Exh 1A - SR-NSCC-2022-015 (Ga	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	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					
Submission, or Advanced Notice by Clearing Agencies *	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					
Add Remove View	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 2- Notices, Written Comments, Transcripts, Other Communications	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.					
Add Remove View						
	Exhibit Sent As Paper Document					
Exhibit 3 - Form, Report, or Questionnaire	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.					
Add Remove View						
RF Exhibit 3a - REDACTED - Blank cc RF Exhibit 3b - REDACTED - Blank cc						
	Exhibit Sent As Paper Document					
Exhibit 4 - Marked Copies	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					
Add Remove View	made from the text of the rule with which it has been working.					
Exhibit 5 - Proposed Rule Text	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.					
Add Remove View	Exhibit 5 shall be considered part of the proposed rule change					
RF Exhibit 5 - Gap Risk Measure Enha						
Partial Amendment	If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with					
Add Remove View	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.					

1. Text of the Proposed Rule Change

The proposed rule change of National Securities Clearing Corporation ("NSCC") (a) consists of modifications to NSCC's Rules & Procedures ("Rules"),¹ annexed hereto as Exhibit 5, in order to enhance the calculation of the volatility component of the Clearing Fund formula that utilizes a parametric Value-at-Risk ("VaR") model ("VaR Charge") by (1) making the result of the gap risk measure ("Gap Risk Measure") calculation an additive component of the VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modifying the language relating to which ETF (as defined below) positions are excluded from the Gap Risk Measure, (3) adjusting both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position, (4)(a)removing the description of the methodology in the Rules for calculating the gap risk haircut, (b) providing that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) changing the floor of the gap risk haircut from 10 percent to 5 percent for the largest position and adding a floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure and (5) making certain clarifications to the description of Gap Risk Measure, as described in greater detail below.

- (b) Not applicable.
- (c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposal was approved by the Risk Committee of the Board of Directors of NSCC on December 14, 2021.

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

(a) <u>Purpose</u>

NSCC is proposing to enhance the calculation of the VaR Charge by (1) making the result of the Gap Risk Measure calculation an additive component of the VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modifying the language relating to which ETF positions are excluded from the Gap Risk Measure, (3) adjusting both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position, (4)(a) removing the description of the methodology in the Rules for calculating the gap risk haircut, (b) providing that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) changing the floor of the gap risk haircut from 10 percent

¹ Capitalized terms not defined herein are defined in the Rules, <u>available at</u> https://dtcc.com/~/media/Files/Downloads/legal/rules/nscc_rules.pdf.

to 5 percent for the largest position and adding a floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure and (5) making certain clarifications to the description of Gap Risk Measure, as described in greater detail below.

The proposed changes would enhance the flexibility of the Gap Risk Measure to broaden the scope of gap risk event coverage and result in more frequent gap risk charges. NSCC conducted an impact study for the period January 1, 2021 through December 31, 2021 ("Impact Study") which reviewed the overall impact of the proposed changes on the VaR Charge amounts, the Clearing Fund amounts (at the NSCC level and Member level) and the effect on the Members during the Impact Study period. The Impact Study looked at the impacts during the Impact Study period as if all of the proposed changes had been made and did not look at the impacts of each of the proposed changes individually. The Impact Study indicated that the proposed changes would have resulted in a 10.66% increase for the daily total VaR Charge on average and would have resulted in a 4.04% increase in the daily total Clearing Fund on average during that period.

The three Members with the largest average daily VaR Charge increases in dollar amount during the Impact Study period would have had increases of \$60,113,514, \$30,054,385 and \$22,237,892 representing an average daily increase for such Members of 31.68%, 14.97% and 28.11%, respectively. The three Members with the largest average daily VaR Charge increases as a percentage of production Clearing Fund paid by such Members during the Impact Study period would have had an average daily increase of 31.78%, 29.07% and 28.99%, respectively, had the proposed changes been in place. Approximately 14% of Members would have had either a decrease or an increase of less than 1% in their average daily VaR Charge had the proposed changes been in place.

Prior to implementation of the proposed changes, NSCC would conduct Member outreach to discuss the proposed changes and the impact of the proposed changes on the Members. Following implementation, NSCC would also incorporate the proposed changes into the NSCC Risk Client Portal and VaR Calculator.

(i) Overview of the Required Fund Deposit and NSCC's Clearing Fund

As part of its market risk management strategy, NSCC manages its credit exposure to Members by determining the appropriate Required Fund Deposits to the Clearing Fund and monitoring its sufficiency, as provided for in the Rules.² The Required Fund Deposit serves as each Member's margin.

The objective of a Member's Required Fund Deposit is to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event NSCC ceases to act for that

² <u>See</u> Rule 4 (Clearing Fund) and Procedure XV (Clearing Fund Formula and Other Matters), <u>supra</u> note 1. NSCC's market risk management strategy is designed to comply with Rule 17Ad-22(e)(4) under the Securities Exchange Act of 1934 ("Act"), where these risks are referred to as "credit risks." 17 CFR 240.17Ad-22(e)(4).

Member (hereinafter referred to as a "default").³ The aggregate of all Members' Required Fund Deposits constitutes the Clearing Fund of NSCC. NSCC would access its Clearing Fund should a defaulting Member's own Required Fund Deposit be insufficient to satisfy losses to NSCC caused by the liquidation of that Member's portfolio.

The volatility component of each Member's Required Fund Deposit is designed to measure market price volatility of the start of day portfolio and is calculated for Members' Net Unsettled Positions and Net Unsettled Balance Order Positions (hereinafter collectively referred to as "Net Unsettled Positions").⁴ The volatility component is designed to capture the market price risk⁵ associated with each Member's portfolio at a 99th percentile level of confidence. NSCC has two methodologies for calculating the volatility component – a "VaR Charge" and a haircut-based calculation. The VaR Charge applies to the majority of Net Unsettled Positions and is calculated as the greater of: (1) the larger of two separate calculations that utilize a parametric Value at Risk ("VaR") model ("Core Parametric Estimation"); (2) the calculation of the Gap Risk Measure, which is based on the concentration threshold of the largest non-index position in a portfolio, as described in greater detail below; and (3) a portfolio margin floor calculation based on the market values of the long and short positions in the portfolio ("Portfolio Margin Floor").⁶ The VaR Charge usually comprises the largest portion of a Member's Required Fund Deposit.

Certain Net Unsettled Positions are excluded from the calculation of the VaR Charge pursuant to Sections I(A)(1)(a)(ii) and I(A)(2)(a)(ii) of Procedure XV and are instead subject to a haircut-based calculation.⁷ The charge that is applied to a Member's Required Fund Deposit with respect to the volatility component is referred to as the volatility charge and is the sum of the applicable VaR Charge and the haircut-based calculation.

NSCC regularly assesses the risks it may face as a central counterparty as such risks relate to its margining methodologies to evaluate whether margin levels are commensurate with the particular risk attributes of each relevant product, portfolio and market. In connection with

- ³ The Rules identify when NSCC may cease to act for a Member and the types of actions NSCC may take. For example, NSCC may suspend a firm's membership with NSCC or prohibit or limit a Member's access to NSCC's services in the event that Member defaults on a financial or other obligation to NSCC. <u>See</u> Rule 46 (Restrictions on Access to Services) of the Rules, <u>supra</u> note 1.
- ⁴ Net Unsettled Positions refer to net positions that have not yet passed their settlement date or did not settle on their settlement date. <u>See</u> Procedure XV (Clearing Fund Formula and Other Matters) of the Rules, <u>supra</u> note 1.
- ⁵ Market price risk refers to the risk that volatility in the market causes the price of a security to change between the execution of a trade and settlement of that trade. This risk is also referred to herein as market risk and volatility risk.

⁷ Procedure XV, Sections I(A)(1)(a)(ii) and I(A)(2)(a)(ii) of the Rules, <u>supra</u> note 1.

⁶ Procedure XV, Sections I(A)(1)(a)(i) and I(A)(2)(a)(i) of the Rules, <u>supra</u> note 1.

this assessment, NSCC is proposing to enhance the Gap Risk Measure calculation. These proposed enhancements have been developed in response to regulatory feedback and in light of recent market events that led to a reconsideration of the idiosyncratic risks that the Gap Risk Measure is designed to mitigate, as described in greater detail below.

The proposed changes would enhance the calculation of the VaR Charge by making the result of the Gap Risk Measure calculation an additive component of the VaR Charge, rather than being applied as the VaR Charge only when it is the largest of three separate calculations. The proposed changes would modify the language relating to which positions are excluded from the Gap Risk Measure. The proposed changes would also adjust both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure, when applicable, to be based on the two largest positions in a portfolio, rather than based on the single largest position. The proposed changes would also adjust the calculation of the gap risk haircut and make certain other clarifications discussed below.

(ii) Overview of Idiosyncratic Risks and the Gap Risk Measure

The Gap Risk Measure was designed to address the risks presented by a portfolio that is more susceptible to the effects of gap risk events due to the idiosyncratic nature of the Net Unsettled Positions in that portfolio (such risks may be referred to as idiosyncratic risks).⁸ Gap risk events have been generally understood as idiosyncratic issuer events (for example, earning reports, management changes, merger announcements, insolvency, or other unexpected, issuerspecific events) that cause a rapid shift in general market price volatility levels. The Gap Risk Measure is designed to address the risk that a gap risk event affects the price of a security in which a portfolio holds a Net Unsettled Position that represents more than a certain percent of the entire portfolio's value, such that the event could impact the entire portfolio's value. Currently, the Gap Risk Measure serves as a substitution to the calculation of the Core Parametric Estimation in case the Gap Risk Measure is greater in magnitude.

The risk of large, unexpected price movements, particularly those caused by a gap risk event, are more likely to have a greater impact on portfolios with large Net Unsettled Positions in securities that are susceptible to those events. Generally, index-based exchange-traded funds ("ETFs") that track closely to diversified indices are less prone to the effects of gap risk events. As such, if the concentration threshold is met, NSCC currently calculates the Gap Risk Measure for Net Unsettled Positions in the portfolio other than positions in ETFs that track diversified indices, as determined by NSCC from time to time ("non-index Net Unsettled Positions").

The Gap Risk Measure is only applied for a Member if the non-index Net Unsettled Position with the largest absolute market value in the portfolio represents more than a certain percent of the entire portfolio's value ("concentration threshold"). The concentration threshold

 <u>See</u> Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, <u>supra</u> note 1.
 <u>See also</u> Securities Exchange Act Release Nos. 82780 (February 26, 2018), 83 FR 9035 (March 2, 2018) (SR-NSCC-2017-808); 82781 (February 26, 2018), 83 FR 9042 (March 2, 2018) (SR-NSCC-2017-020) ("Initial Filing").

was initially set at 30 percent of a Member's entire portfolio value.⁹ The concentration threshold can be set no higher than 30 percent and is evaluated periodically based on Members' backtesting results over a twelve month look-back period to determine if it may be appropriate to lower the threshold.¹⁰ Currently, the concentration threshold is set at 5%.¹¹

When applicable, NSCC calculates the Gap Risk Measure by multiplying the gross market value of the largest non-index Net Unsettled Position in the portfolio by a percent of not less than 10 percent ("gap risk haircut").¹² Currently, NSCC determines the gap risk haircut empirically as no less than the larger of the 1st and 99th percentiles of three-day returns of a set of CUSIPs that are subject to the VaR Charge pursuant to the Rules, giving equal rank to each to determine which has the highest movement over that three-day period. NSCC uses a look-back period of not less than ten years that includes a one-year stress period. If the one-year stress period overlaps with the look-back period, only the non-overlapping period would be combined with the look-back period. The result is then rounded up to the nearest whole percentage.

NSCC is proposing changes to the calculation of the Gap Risk Measure that are designed to allow NSCC to apply this charge based on more than one position and more frequently. Recent extreme market events, including both the impacts of the COVID-19 pandemic and volatility caused by social media sentiments (referred to as the "meme stock events"), have led NSCC to reconsider the causes and characteristics of idiosyncratic risks that the Gap Risk Measure was designed to mitigate. More specifically, these events have indicated that price changes due to gap risk events seem to occur more frequently and in higher severity; and may not be isolated to issuer events but driven by new mechanisms that drive concurrent market price moves involving unconventionally correlated securities. The Gap Risk Measure provides an insurance against various permutations of idiosyncratic risk moves, however, it is not targeted to capture and cover all such instances, especially when they are extreme, including certain meme stock events. NSCC believes the proposed enhancements to the Gap Risk Measure calculation, described below, would improve its ability to measure and mitigate against these idiosyncratic risks.

(iii) Proposed Changes to Enhance the Gap Risk Measure and Enhance Transparency

With a goal of enhancing the Gap Risk Measure to broaden the scope of gap risk event coverage, NSCC explored a number of alternatives in particular by (1) using the Gap Risk Measure as an additive component rather than a substitutive component of the VaR Charge and (2) applying the Gap Risk Measure to one or more positions in a portfolio. NSCC also

⁹ <u>See Id.</u>

¹⁰ <u>Id.</u>

¹¹ See Important Notice a9055, dated September 27, 2021, at https://www.dtcc.com/-/media/Files/pdf/2021/9/27/a9055.pdf (notifying Members that the concentration threshold had been changed from 10% to 5%).

¹² See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV, <u>supra</u> note 1.

conducted impact studies based on various permutations of the parameters and NSCC is proposing enhancements to the Gap Risk Measure that would improve NSCC's ability to mitigate against idiosyncratic risks as described below. NSCC is also proposing enhancements to the transparency of the Rules by making certain clarifications to the description of the Gap Risk Measure.

NSCC is proposing to make the following enhancements to the Gap Risk Measure: (1) make the Gap Risk Measure an additive component of the Member's total VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modify the language relating to which ETF positions are excluded from the Gap Risk Measure, (3) adjust both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position,(4)(a) remove the description of the methodology in the Rules for calculating the gap risk haircut, (b) provide that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) change the floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure, and (5) make certain clarifications to the description of the Gap Risk Measure.

Proposed Changes to Application and Calculation of the Gap Risk Measure

First, NSCC is proposing to make the result of the Gap Risk Measure calculation an additive component of Members' total VaR Charge, rather than applicable as the VaR Charge only when it is the highest result of three calculations. Following implementation of this proposed change, the total VaR Charge would be equal to the sum of (1) the greater of (a) the Core Parametric Estimation and (b) the Portfolio Margin Floor calculation; and (2) the Gap Risk Measure calculation. This proposed change would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which could improve NSCC's ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge. Rather than being applied only if the Gap Risk Measure calculation, the Gap Risk Measure calculation would apply every time the top two positions exceed the concentration threshold. Based on impact studies, NSCC believes this broader application together with the other proposed changes outlined below would better protect against more idiosyncratic risk scenarios than the current methodology.

Second, NSCC is proposing to modify the Rules regarding the ETF positions that are excluded from the Gap Risk Measure calculation. The Rules currently state that only "non-index" positions are included in the Gap Risk Measure.¹³ NSCC is proposing to replace the reference to "non-index" positions with a reference to "non-diversified" positions and add a footnote to Sections I(A)(1)(a)(i) and I(A)(2)(a)(i) of Procedure XV of the Rules to state that NSCC would exclude ETF positions from the calculation if the ETFs have characteristics that

¹³ <u>See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, supra note 1.</u> <u>See also Initial Filing, supra note 8.</u>

indicate that such positions are less prone to the effects of gap risk events, as determined by NSCC from time to time. NSCC has determined that certain ETFs, both index based and nonindex based, are less prone to the effects of gap risk events as a result of having certain characteristics and, therefore, are less likely to pose idiosyncratic risks that the Gap Risk Measure is designed to mitigate. Such characteristics include whether the ETF tracks to an index that is linked to a broad based market index, contains a diversified underlying basket, is unleveraged or tracks an asset class that is less prone to gap risk. For instance, NSCC has determined to include certain commodity ETFs from the Gap Risk Measure that track to an index but that are not linked to a broad-based diversified commodity index. The proposed change would result in these commodity ETFs that track to an index but that are not linked to a broad-based diversified commodity index based ETFs from the Gap Risk Measure whereas they are currently excluded. NSCC has determined to exclude certain non-index based ETFs from the Gap Risk Measure that track to an asset that are less prone to gap risk, such as unleveraged U.S. dollar based ETFs. The proposed change would result in certain non-index based ETFs being excluded from the Gap Risk Measure whereas they are currently included.

NSCC currently identifies those positions that are less likely to pose idiosyncratic risks and excludes those positions from the calculation of the Gap Risk Measure.¹⁴ The proposed change would provide Members with further transparency regarding which positions are excluded from this calculation by reflecting that certain non-index ETFs that have characteristics that indicate that such positions are less prone to the effects of gap risk events would be excluded and by reflecting that index based ETFs would only be excluded if they have characteristics that indicate that such positions are less prone to the effects of gap risk events. NSCC would also indicate in the Rules that such characteristics include whether the ETF tracks to an index that is linked to a broad based market index, contains a diversified underlying basket, is unleveraged or tracks an asset class that is less prone to gap risk.

Third, NSCC is proposing to adjust the trigger of the Gap Risk Measure to be based on the sum of the absolute values of the two largest non-diversified Net Unsettled Positions in a portfolio, rather than based on the absolute value of the single largest non-diversified Net Unsettled Position. More specifically, the Gap Risk Measure would be applicable if the sum of the absolute values of the two largest non-diversified Net Unsettled Positions in the portfolio represents more than the concentration threshold determined by NSCC from time to time.

In addition, the Gap Risk Measure would be calculated using the two largest nondiversified Net Unsettled Positions by multiplying each of the positions with a gap risk haircut and adding the sum of the resulting products. By applying the Gap Risk Measure to the two largest non-diversified positions in the portfolio, the Gap Risk Measure calculation would cover concurrent gap moves involving more than one concentrated position adding more flexibility and coverage to the Gap Risk Measure. The Gap Risk Measure charge for the two largest positions would also provide coverage for gap events for smaller positions in the portfolio.

¹⁴ NSCC uses a third-party market provider to identify ETFs that meet its defined criteria of being diversified. ETFs that do not meet the criteria specified by NSCC are not included the Gap Risk Measure calculation.

Fourth, NSCC would be adjusting the calculation of the gap risk haircut and replacing the current description with a description like the description of the calculation for the concentration threshold. Currently, the gap risk haircut is determined by selecting the largest of the 1st and 99th percentiles of three day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one year stress period.¹⁵ With the current methodology, there is implicit overlapping of the risk covered by the core Parametric VaR and the Gap Risk Measure. Because NSCC would be using the Gap Risk Measure as an additive component to the VaR Charge rather than a substitutive component, NSCC does not believe that the current methodology for the gap risk haircut would result in an appropriate level. Instead of using the current methodology to calculate the gap risk haircut, NSCC would determine and calibrate the concentration threshold and the gap risk haircut from time to time based on backtesting and impact analysis. More specifically, the concentration threshold and the gap risk haircuts would be selected from various combinations of concentration thresholds and gap risk haircuts based on backtesting and impact analysis across all member portfolios initially over a five year look-back period. This would provide more flexibility to set the parameters from time to time to provide improved backtesting performance, broader coverage for idiosyncratic risk scenarios and flexibility for model tuning to balance performance and cost considerations.

In connection with the proposed expansion of the calculation of the Gap Risk Measure to be based on the two largest non-diversified Net Unsettled Positions in the portfolio, NSCC is also proposing to lower the gap risk haircut that would be applied to the largest non-diversified Net Unsettled Position to be a percent that is no less than 5 percent. Currently, the percent that is applied to the largest non-index Net Unsettled Positions in the portfolio is no less than 10 percent.¹⁶ Given the proposed expansion of the calculation of the Gap Risk Measure to cover the two largest non-diversified Net Unsettled Positions, rather than only the single largest non-diversified Net Unsettled Position, NSCC believes it is appropriate to set a lower floor for the gap risk haircut that applies to the largest of those two positions. Given that the Gap Risk Measure would be additive rather than a substitutive component of the VaR Charge and would be triggered more frequently, NSCC believes that the flexibility to set a lower floor for the largest position would be appropriate. The gap risk haircut that would be applied to the second largest non-diversified Net Unsettled Position in the portfolio would be no larger than the gap risk haircut that would be applied to the largest non-diversified Net Unsettled Position in the portfolio would be no larger than the gap risk haircut that would be applied to the largest non-diversified Net Unsettled Position in the portfolio would be no larger than the gap risk haircut that would be applied to the largest non-diversified Net Unsettled Position in the portfolio would be no larger than the gap risk haircut that would be applied to the largest non-diversified Net Unsettled Position and would be subject to a floor of 2.5 percent.

Initially, upon implementation, NSCC would set the concentration threshold at 10%, apply a gap risk haircut on the largest Net Unsettled Position of 10% and a gap risk haircut on the second largest Net Unsettled Position of 5%. NSCC would set the concentration threshold and the gap risk haircuts based on backtesting and impact analysis from time to time in accordance with NSCC's model risk management practices and governance set forth in the

¹⁵ <u>Id.</u>

¹⁶ <u>Id.</u>

Model Risk Management Framework ("Model Risk Management Framework").¹⁷ NSCC's model risk management governance procedures include daily backtesting of model performance, periodic sensitivity analyses of models and annual validation of models. NSCC would review the concentration threshold and the gap risk haircuts at least annually. NSCC would provide notice to Members by important notice of the concentration threshold and gap risk haircuts that it would be applying and changes to the concentration threshold and to the gap risk haircuts.

Therefore, upon implementation, to determine the Gap Risk Measure for each portfolio, NSCC would determine the two largest non-diversified positions in the portfolio. If the sum of the gross market values of those two positions represent more than the concentration threshold of 10% of the gross market value of the portfolio, NSCC would add (i) an amount equal to 10% of the gross market value of the largest position and (ii) an amount equal to 5% of the gross market value of the second largest position. The sum amount would be included in the volatility component of the Required Fund Deposit for that portfolio.

As described in the Initial Filing, the Gap Risk Measure is designed to measure concentration of positions in a portfolio, which is an important indicator of that portfolio's vulnerability to idiosyncratic risks. By expanding the applicability of the Gap Risk Measure to each time the concentration threshold is met, the proposed changes to enhance the calculation of the Gap Risk Measure, described above, would improve the effectiveness of the VaR Charge in mitigating against those risks.

Proposed Changes to Improve Transparency

Fifth, NSCC would make the following clarification changes to improve transparency in the Rules.

NSCC is proposing to remove the specific references to the concentration threshold as 30 percent in the definition to reflect that NSCC may adjust the concentration threshold from time to time, as determined by NSCC based on the backtesting results and impact analysis over a look-back period of no less than the previous 12 months.¹⁸ The Rules currently define the concentration threshold as more than 30 percent of the value of the entire portfolio.¹⁹ The Rules also provide that the concentration threshold would be no more than 30 percent and would be

- ¹⁸ Id.
- ¹⁹ See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, <u>supra</u> note 1. <u>See also Initial Filing, supra</u> note 8.

 ¹⁷ See Securities Exchange Act Release Nos. 81485 (August 25, 2017), 82 FR 41433 (August 31, 2017) (File No. SR-NSCC-2017-008); 84458 (October 19, 2018), 83 FR 53925 (October 25, 2018) (File No. SR-NSCC-2018-009), 88911 (May 20, 2020), 85 FR 31828 (May 27, 2020) (File No. SR-NSCC-2020-008), 92381 (July 13, 2021), 86 FR 38163 (July 19, 2021) (File No. SR-NSCC-2021-008), and 94272 (February 17, 2022), 87 FR 10419 (February 24, 2022) (File No. SR-NSCC-2022-001). The Model Risk Management Framework sets forth the model risk management practices adopted by NSCC.

determined by NSCC from time to time.²⁰ The proposed changes would clarify that the concentration threshold is not fixed at 30 percent by defining concentration threshold as a percentage designated by the Corporation of the value of the entire portfolio which is determined by NSCC from time to time. The Rules would continue to state that the concentration threshold would be no more than 30 percent. NSCC believes this proposed change will help clarify that the concentration threshold could change from time to time but could not be set to be more than 30 percent.

NSCC would revise language relating to the application of the Gap Risk Measure to Securities Financing Transactions ("SFTs"). Rule 56 governs the SFT Clearing Service.²¹ Section 12(c) of Rule 56 ("Section 12(c)") provides that NSCC shall calculate the amount of each SFT Member's required deposit for SFT Positions by applying the Clearing Fund Formula for CNS Transactions set forth in certain sections in Procedure XV.²² Footnote 1 ("Footnote 1") in Section 12(c) provides that for purposes of applying the VaR Charge with respect to SFT Positions, NSCC shall apply the Gap Risk Measure as an additive component of the VaR Charge, which is consistent with how Net Unsettled Positions would be treated by the proposed changes.²³ Pursuant to Footnote 1, NSCC has been applying the Gap Risk Measure as an additive component of the VaR Charge with respect to SFT Positions but applying the Gap Risk Measure to other Net Unsettled Positions as a substitutive component as currently set forth in Procedure XV of the Rules. If the proposed changes contemplated by this filing were implemented, it would be unnecessary to distinguish how the Gap Risk Measure is calculated for SFT Positions because the Gap Risk Measure would be applied to SFT Positions in the same manner as it would be applied to other Net Unsettled Positions. As a result, NSCC is proposing to remove Footnote 1.

NSCC is also proposing to change the reference from "positions" to "Net Unsettled Positions" or "Net Balance Order Unsettled Positions", as applicable, to clarify that the positions subject to the Gap Risk Measure are Net Unsettled Positions. NSCC would also remove "the portfolio's" from the provision relating to how the concentration threshold and gap risk haircuts would be determined and calibrated because the reference is unnecessary. The same concentration threshold and gap risk haircuts would apply to all portfolios and would be calibrated based on backtesting and impact analysis of multiple portfolios. In addition, in

²⁰ Id.

Rule 56, supra note 1.

²² Section 12(c) of Rule 56, <u>supra</u> note 1.

See Footnote 1, supra note 1, which states "For the purpose of applying Section I.(A)(1)(a)(i) of Procedure XV (Value-at-Risk (VaR) charge), the volatility of an SFT Member's SFT Positions shall be the sum of (a) the highest resultant value between Section I.(A)(1)(a)(i)I. (Core Parametric Estimation) and Section I.(A)(1)(a)(i)II. (Margin Floor) and (b) the resultant value of Section I.(A)(1)(a)(i)II. (Gap Risk Measure)."

accordance with the Model Risk Management Framework,²⁴ NSCC conducts periodic impact analysis of its models, including impacts on NSCC and impacts on Members. As such, NSCC is proposing to include "impact analysis" in addition to backtesting results as a measure of what NSCC would review to determine and calibrate the concentration threshold and gap risk haircuts. NSCC is also proposing to replace "would" with "shall" in four places to reflect that it is referring to future actions. NSCC would add "gross market" in front of "value" in two places and replace "absolute" with "gross market" in two places to clarify that NSCC would be using the gross market value of the positions and the portfolio in the Gap Risk Measure calculations. NSCC would also add a sentence in the Gap Risk Measure sections indicating that NSCC would announce updates of the concentration threshold and gap risk haircuts by Important Notice.

Proposed Changes to NSCC Rules

The proposed changes described above would be implemented by amending the description of the VaR Charge in Sections I(A)(1)(a)(i) and I(A)(2)(a)(i) of Procedure XV of the Rules. The proposed changes would also move the descriptions of the Portfolio Margin Floor and the Gap Risk Measure to Sections I(A)(1)(a)(i)II and I(A)(2)(a)(i)II and Sections I(A)(1)(a)(i)II and I(A)(2)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV, respectively.

The proposed changes would amend the description of the VaR Charge to state that it would be equal to the sum of (1) the highest resultant value among Sections I(A)(1)(a)(i)I and I(A)(2)(a)(i)I (which describe the Core Parametric Estimation) and Sections I(A)(1)(a)(i)II and I(A)(2)(a)(i)II (which would describe the Portfolio Margin Floor); and (2) the resultant value of Sections I(A)(1)(a)(i)III and I(A)(2)(a)(i)III (which would describe the Gap Risk Measure).

The proposed changes would amend the description of the Gap Risk Measure to refer to the two largest non-diversified Net Unsettled Positions in the portfolio, rather than the largest non-index position, as described above, would include a footnote in this description to clarify which positions are excluded from the calculation of the Gap Risk Measure and make the other changes described above in proposed Sections I(A)(1)(a)(i)III and I(A)(2)(a)(i)III.

The proposed changes would also remove Footnote 1 from Rule 56 as described above.

(iv) Implementation Timeframe

NSCC would implement the proposed changes no later than 60 Business Days after the later of the approval of the proposed rule change and the no objection to the advance notice²⁵ by

²⁴ <u>See Model Risk Management Framework, supra note 17.</u>

 ²⁵ NSCC filed this proposed rule change as an advance notice (File No. SR-NSCC-2022-802) with the Securities and Exchange Commission ("Commission") pursuant to Section 806(e)(1) of Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010, 12 U.S.C. 5465(e)(1), and Rule 19b-4(n)(1)(i) under the Act, 17 CFR 240.19b-4(n)(1)(i). A copy of the advance notice is <u>available at https://www.dtcc.com/legal/sec-rule-filings.aspx.</u>

the Commission. NSCC would announce the effective date of the proposed changes by Important Notice posted to its website.

(b) <u>Statutory Basis</u>

NSCC believes that the proposed changes are consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. In particular, NSCC believes the proposed changes are consistent with Section 17A(b)(3)(F) of the Act,²⁶ and Rules 17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii), each promulgated under the Act,²⁷ for the reasons described below.

Section 17A(b)(3)(F) of the Act requires that the rules of NSCC be designed to, among other things, assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible and promote the prompt and accurate clearance and settlement of securities transactions.²⁸ As discussed above, NSCC is proposing enhancements to the Gap Risk Measure portion of the VaR Charge, one of the components of its Members' Required Deposits – a key tool that NSCC uses to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event of Member default. NSCC believes the proposed changes are designed to assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible because they are designed to enable NSCC to better limit its exposure to Members in the event of a Member default. More specifically, the proposal would expand the applicability of the Gap Risk Measure and NSCC's ability to collect amounts calculated through this component, which is designed to mitigate idiosyncratic risks that NSCC may face.

In its review of the Gap Risk Measure, NSCC conducted impact studies adjusting differing parameters and thresholds to determine a model that would provide improved backtesting performance, broader coverage for idiosyncratic risk scenarios and flexibility for model tuning to balance performance and cost considerations to Members. Based on the impact studies, NSCC determined that the following enhancements to the Gap Risk Measure described above would enhance the flexibility of the Gap Risk Measure to broaden the scope of gap risk event coverage and to use parameters to allow for coverage of larger gap moves: (1) making the Gap Risk Measure an additive component of the Member's total VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modifying the language relating to which ETF positions are excluded from the Gap Risk Measure, (3) adjusting both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position and (4)(a) removing the description of the methodology in the Rules for calculating the gap risk haircut, (b) providing that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) changing the floor of the gap risk haircut from 10 percent

²⁷ 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii).

²⁸ 15 U.S.C. 78q-1(b)(3)(F).

²⁶ 15 U.S.C. 78q-1(b)(3)(F).

to 5 percent for the largest position and adding a floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure ("Gap Risk Measure Enhancements").

The Clearing Fund is a key tool that NSCC uses to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event of Member default. Therefore, the Gap Risk Measure Enhancements would enable NSCC to better address the potential idiosyncratic risks that it may face when liquidating a portfolio that contains a concentration of positions, such that, in the event of Member default, NSCC's operations would not be disrupted, and non-defaulting Members would not be exposed to losses they cannot anticipate or control. In particular, making the Gap Risk Measure additive would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which would improve NSCC's ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge and better protect against more idiosyncratic risk scenarios than the current methodology. Modifying ETF positions that are subject to the Gap Risk Measure based on whether they are non-diversified rather than whether they are non-index would allow NSCC to more accurately determine which ETFs should be included and excluded from the Gap Risk Measure based on characteristics that indicate that such ETFs are more or less prone to the effects of gap risk events. Adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio would cover concurrent gap moves involving more than one concentrated position providing more coverage of the Gap Risk Measure. Removing specific methodology metrics relating to the gap risk haircuts and adding that gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis, lowering the floor for the gap risk haircut that applies to the largest of the two largest non-diversified Net Unsettled Positions and setting a floor of 2.5 percent for the second largest non-diversified Net Unsettled Positions would allow NSCC to calibrate and set appropriate gap risk haircuts based on the Gap Risk Measure being additive rather than a substitutive component to the VaR Charge. In this way, the proposed rule change to introduce the Gap Risk Measure Enhancements are designed to assure the safeguarding of securities and funds which are in the custody or control of NSCC or for which it is responsible, consistent with Section 17A(b)(3)(F) of the Act.²⁹

NSCC also believes the proposed changes to provide transparency to the Rules by (a) removing the references to 30 percent as the concentration threshold to reflect that it is adjusted from time, (b) removing Footnote 1 relating to the application of Gap Risk Measure for SFT Positions from Rule 56, (c) changing the reference from "positions" to "Net Unsettled Positions" or "Net Balance Order Unsettled Positions", as applicable, (d) removing the unnecessary reference to "the portfolio's" in reference to backtesting results, (e) including a reference to "impact analysis" as a measure of what NSCC would review to determine and calibrate the concentration threshold and gap risk haircuts, (f) replacing "would" with "shall" in four places, (g) clarifying that the calculations would be referring to the gross market value of the positions and portfolios, and (h) adding a sentence indicating that NSCC would announce updates of the concentration threshold and gap risk haircuts by Important Notice ("Transparency

²⁹ <u>Id.</u>

Enhancements") are consistent with the requirements of Section 17A(b)(3)(F) of the Act.³⁰ Specifically, by enhancing the transparency of the Rules, the proposed changes would allow Members to more efficiently and effectively conduct their business in accordance with the Rules, which NSCC believes would promote the prompt and accurate clearance and settlement of securities transactions.

Rule 17Ad-22(e)(4)(i) under the Act requires, in part, that NSCC 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 sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.³¹

As described above, NSCC believes that the proposed changes would enable it to better identify, measure, monitor, and, through the collection of Members' Required Fund Deposits, manage its credit exposures to Members by maintaining sufficient resources to cover those credit exposures fully with a high degree of confidence. Specifically, NSCC believes that the Gap Risk Measure Enhancements would provide improved backtesting performance, broader coverage for idiosyncratic risk scenarios and flexibility for model tuning to balance performance and cost considerations to Members, and would address the potential increased risks NSCC may face related to its ability to liquidate a portfolio that is susceptible to such risks in the event of a Member default. In particular, making the Gap Risk Measure additive would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which would improve NSCC's ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge and better protect against more idiosyncratic risk scenarios than the current methodology. Modifying ETF positions that are subject to the Gap Risk Measure based on whether they are non-diversified rather than whether they are non-index would allow NSCC to more accurately determine which ETFs should be included and excluded from the Gap Risk Measure based on characteristics that indicate that such ETFs are more or less prone to the effects of gap risk events. Adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio would cover concurrent gap moves involving more than one concentrated position providing more coverage of the Gap Risk Measure. Removing specific methodology metrics relating to the gap risk haircuts and adding that gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis, lowering the floor for the gap risk haircut that applies to the largest of the two largest non-diversified Net Unsettled Positions and setting a floor of 2.5 percent for the second largest non-diversified Net Unsettled Positions would allow NSCC to calibrate and set appropriate gap risk haircuts based on the Gap Risk Measure being additive rather than a substitutive component to the VaR Charge. NSCC compared a number of different models for the Gap Risk Measure with different parameters and thresholds, including the Gap Risk Measure Enhancements and determined that the Gap Risk Measure Enhancements improved backtesting performance, provided broader coverage for idiosyncratic risk scenarios

³⁰ Id.

³¹ 17 CFR 240.17Ad-22(e)(4)(i).

and flexibility for model tuning to balance performance and cost considerations to Members.

Therefore, NSCC believes that the proposal would enhance NSCC's ability to effectively identify, measure and monitor its credit exposures and would enhance its ability to maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. As such, NSCC believes the proposed changes are consistent with Rule 17Ad-22(e)(4)(i) under the Act.³²

Rule 17Ad-22(e)(6)(i) under the Act requires, in part, that NSCC establish, implement, maintain and enforce written policies and procedures reasonably designed to cover its credit exposures to its participants by establishing a risk-based margin system that, at a minimum, considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market.³³

The Required Fund Deposits are made up of risk-based components (as margin) that are calculated and assessed daily to limit NSCC's credit exposures to Members, including the VaR Charge. NSCC's proposed Gap Risk Measure Enhancements are designed to more effectively address the risks presented by a portfolio that meets the concentration threshold and, therefore, is more susceptible to the impacts of idiosyncratic risks. NSCC believes the enhanced VaR Charge, as a result of the Gap Risk Measure Enhancements would enable NSCC to assess a more appropriate level of margin that accounts for these risks. In particular, making the Gap Risk Measure additive would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which would improve NSCC's ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge and better protect against more idiosyncratic risk scenarios than the current methodology. Rather than being applied only if the Gap Risk Measure calculation exceeds the Core Parametric Estimation and the Portfolio Margin Floor calculation, the Gap Risk Measure calculation would apply every time the top two positions exceed the concentration threshold. Based on impact studies, NSCC believes this broader application together with the other proposed changes outlined below would better protect against more idiosyncratic risk scenarios than the current methodology Modifying ETF positions that are subject to the Gap Risk Measure based on whether they are non-diversified rather than whether they are non-index would allow NSCC to more accurately determine which ETFs should be included and excluded from the Gap Risk Measure based on characteristics that indicate that such ETFs are more or less prone to the effects of gap risk events. Adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio would cover concurrent gap moves involving more than one concentrated position providing more coverage of the Gap Risk Measure. Removing specific methodology metrics relating to the gap risk haircuts and adding that gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis, lowering the floor for the gap risk haircut that applies to the largest of the two largest non-diversified Net Unsettled Positions and setting a floor of 2.5 percent for the second largest non-diversified Net Unsettled Positions would allow NSCC to calibrate and set appropriate gap

³² Id.

³³ 17 CFR 240.17Ad-22(e)(6)(i).

risk haircuts based on the Gap Risk Measure being additive rather than a substitutive component to the VaR Charge. These proposed changes are designed to assist NSCC in maintaining a risk-based margin system that considers, and produces margin levels commensurate with, the risks and particular attributes of portfolios that meet the concentration threshold, as applied through the current methodology. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(i) under the Act.³⁴

Rule 17Ad-22(e)(23)(ii) under the Act requires, in part, that NSCC establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency.³⁵ By making the proposed Transparency Enhancements, the proposed changes would improve the transparency of the Rules. By providing Members with additional information that would enable them to evaluate the risks and material costs they incur by participating in NSCC, NSCC believes the proposed change is consistent with the requirements of Rule 17Ad-22(e)(23)(ii).³⁶

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

NSCC does not believe the proposed Transparency Enhancements would impact competition. These proposed rule changes would merely enhance the transparency of the Rules. Therefore, this proposed changes would not affect NSCC's operations or the rights and obligations of Members. As such, NSCC believes this proposed rule change to improve the transparency of the Rules would not have any impact on competition.

NSCC believes that the Gap Risk Measure Enhancements could have an impact on competition. Specifically, NSCC believes the proposed changes could burden competition because they would result in larger Required Fund Deposit amounts for Members when the additional charges are applicable and result in a Required Fund Deposit that is greater than the amount calculated pursuant to the current formula.

When the proposal results in a larger Required Fund Deposit, the Gap Risk Measure Enhancements could burden competition for Members that have lower operating margins or higher costs of capital compared to other Members. However, the increase in Required Fund Deposit would be in direct relation to the specific risks presented by each Member's Net Unsettled Positions, and each Member's Required Fund Deposit would continue to be calculated with the same parameters and at the same confidence level for each Member. Therefore, Members that present similar Net Unsettled Positions, regardless of the type of Member, would have similar impacts on their Required Fund Deposit amounts. As such NSCC believes that any burden on competition imposed by the proposed changes would not be significant and, further, would be both necessary and appropriate in furtherance of NSCC's efforts to mitigate risks and

³⁶ <u>Id.</u>

³⁴ <u>Id.</u>

³⁵ 17 CFR 240.17Ad-22(e)(23)(ii).

meet the requirements of the Act, as described in this filing and further below.

NSCC believes the above described burden on competition that may be created by the proposed enhancement of the VaR Charge through the expansion of the Gap Risk Measure would be necessary in furtherance of the Act, specifically Section 17A(b)(3)(F) of the Act.³⁷ As stated above, the proposed Gap Risk Measure Enhancements would improve NSCC's ability to mitigate against idiosyncratic risks that are presented by portfolios that meet the concentration threshold, including the risks related to gap risk events that are not driven by issuer events. Therefore, NSCC believes this proposed change is consistent with the requirements of Section 17A(b)(3)(F) of the Act, which requires that the Rules be designed to assure the safeguarding of securities and funds that are in NSCC's custody or control or which it is responsible.³⁸

NSCC believes these proposed changes would also support NSCC's compliance with Rules 17Ad-22(e)(4)(i) and Rule 17Ad-22(e)(6)(i) under the Act, which require NSCC to establish, implement, maintain and enforce written policies and procedures reasonably designed to (x) effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by maintaining sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence; and (y) cover its credit exposures to its participants by establishing a risk-based margin system that, at a minimum, considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market.³⁹

As described above, NSCC believes the proposed Gap Risk Measure Enhancements would allow NSCC to employ a risk-based methodology to address the increased idiosyncratic risks presented by the occurrence of gap risk events that are presented by portfolios that meet the concentration threshold. Therefore, the proposed changes would better limit NSCC's credit exposures to Members, consistent with the requirements of Rules 17Ad-22(e)(4)(i) and Rule 17Ad-22(e)(6)(i) under the Act.⁴⁰

NSCC believes that the above-described burden on competition that could be created by the proposed changes would be appropriate in furtherance of the Act because such changes have been appropriately designed to assure the safeguarding of securities and funds which are in the custody or control of NSCC or for which it is responsible, as described in detail above. The proposed enhancement to the VaR Charge through the expansion of the Gap Risk Measure would enable NSCC to produce margin levels more commensurate with the risks and particular attributes of each Member's portfolio.

The proposed changes would do this by continuing to apply the Gap Risk Measure only when the concentration threshold is met. The proposed change to expand the sensitivity of the

³⁸ Id.

⁴⁰ <u>Id.</u>

³⁷ 15 U.S.C. 78q-1(b)(3)(F).

³⁹ 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i).

charge to refer to the two largest non-diversified Net Unsettled Positions in the portfolio would provide NSCC with a better measure of the various and unexpected idiosyncratic risks it may face, in light of the recent gap risk events that did not derive from issuer events. Therefore, because the proposed changes are designed to provide NSCC with an appropriate measure of the risks (*i.e.*, risks related to gap risk events) presented by Members' portfolios, NSCC believes the proposal is appropriately designed to meet its risk management goals and its regulatory obligations.

NSCC believes that it has designed the proposed changes in an appropriate way in order to meet compliance with its obligations under the Act. Specifically, the proposals would improve the risk-based margining methodology that NSCC employs to set margin requirements and better limit NSCC's credit exposures to its Members. Therefore, as described above, NSCC believes the proposed changes are necessary and appropriate in furtherance of NSCC's obligations under the Act, specifically Section 17A(b)(3)(F) of the Act⁴¹ and Rule 17Ad-22(e)(4)(i) and Rule 17Ad-22(e)(6)(i) under the Act.⁴²

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

NSCC has not received or solicited any written comments relating to this proposal. If any written comments are received, they will be publicly filed as an Exhibit 2 to this filing, as required by Form 19b-4 and the General Instructions thereto.

Persons submitting comments are cautioned that, according to Section IV (Solicitation of Comments) of the Exhibit 1A in the General Instructions to Form 19b-4, the Commission does not edit personal identifying information from comment submissions. Commenters should submit only information that they wish to make available publicly, including their name, email address, and any other identifying information.

All prospective commenters should follow the Commission's instructions on how to submit comments, <u>available at https://www.sec.gov/regulatory-actions/how-to-submit-comments</u>. General questions regarding the rule filing process or logistical questions regarding this filing should be directed to the Main Office of the Commission's Division of Trading and Markets at tradingandmarkets@sec.gov or 202-551-5777.

NSCC reserves the right not to respond to any comments received.

6. Extension of Time Period for Commission Action

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

⁴¹ 15 U.S.C. 78q-1(b)(3)(F).

⁴² 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i).

of the Act⁴³ for Commission action.

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

- (a) Not applicable.
- (b) Not applicable.
- (c) Not applicable.
- (d) Not applicable.

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

Not applicable.

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

Not applicable.

10. Advance Notice Filed Pursuant to Section 806(e) of the Payment, Clearing, and Settlement Supervision Act of 2010

Not applicable.

11. Exhibits

Exhibit 1 – Not applicable.

Exhibit 1A - Notice of proposed rule change for publication in the Federal Register.

Exhibit 2 – Not applicable.

Exhibit 3a – Impact Study Data Summaries. *Omitted and filed separately with the Commission. Confidential treatment of this Exhibit 3a pursuant to 17 CFR 240.24b-2 being requested.*

Exhibit 3b – NSCC Methodology Document, NSCC Gap Risk Measure. *Omitted and filed separately with the Commission. Confidential treatment of this Exhibit 3b pursuant to 17 CFR 240.24b-2 being requested.*

Exhibit 4 – Not applicable.

⁴³ 15 U.S.C. 78s(b)(2).

Exhibit 5 – Proposed changes to the Rules.

EXHIBIT 1A

SECURITIES AND EXCHANGE COMMISSION (Release No. 34-[____]; File No. SR-NSCC-2022-015)

[DATE]

Self-Regulatory Organizations; National Securities Clearing Corporation; Notice of Filing a Proposed Rule Change to Make Certain Enhancements to the Gap Risk Measure and the VaR Charge

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that on December __, 2022, National Securities Clearing Corporation ("NSCC") 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 by the clearing agency.³ The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. <u>Clearing Agency's Statement of the Terms of Substance of the Proposed Rule</u> <u>Change</u>

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ NSCC filed this proposed rule change as an advance notice (SR-NSCC-2022-802) with the Commission pursuant to Section 806(e)(1) of Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010, 12 U.S.C. 5465(e)(1), and Rule 19b-4(n)(1)(i) under the Act, 17 CFR 240.19b-4(n)(1)(i). A copy of the advance notice is <u>available at https://www.dtcc.com/legal/sec-rule-filings.aspx</u>.

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(a) The proposed rule change of NSCC consists of modifications to NSCC's Rules & Procedures ("Rules")⁴ in order to enhance the calculation of the volatility component of the Clearing Fund formula that utilizes a parametric Value-at-Risk ("VaR") model ("VaR Charge") by (1) making the result of the gap risk measure ("Gap Risk Measure") calculation an additive component of the VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modifying the language relating to which ETF (as defined below) positions are excluded from the Gap Risk Measure, (3) adjusting both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position, (4)(a) removing the description of the methodology in the Rules for calculating the gap risk haircut, (b) providing that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) changing the floor of the gap risk haircut from 10 percent to 5 percent for the largest position and adding a floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure and (5) making certain clarifications to the description of Gap Risk Measure, as described in greater detail below.

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

In its filing with the Commission, the clearing agency 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

Capitalized terms not defined herein are defined in the Rules, <u>available at</u> https://dtcc.com/~/media/Files/Downloads/legal/rules/nscc_rules.pdf.

examined at the places specified in Item IV below. The clearing agency has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

(A) <u>Clearing Agency's Statement of the Purpose of, and Statutory Basis for,</u> <u>the Proposed Rule Change</u>

1. <u>Purpose</u>

NSCC is proposing to enhance the calculation of the VaR Charge by (1) making the result of the Gap Risk Measure calculation an additive component of the VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modifying the language relating to which ETF positions are excluded from the Gap Risk Measure, (3) adjusting both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position, (4)(a) removing the description of the methodology in the Rules for calculating the gap risk haircut, (b) providing that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) changing the floor of the gap risk haircut from 10 percent to 5 percent for the largest position and adding a floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure and (5) making certain clarifications to the description of Gap Risk Measure, as described in greater detail below.

The proposed changes would enhance the flexibility of the Gap Risk Measure to broaden the scope of gap risk event coverage and result in more frequent gap risk charges. NSCC conducted an impact study for the period January 1, 2021 through December 31, 2021 ("Impact Study") which reviewed the overall impact of the proposed changes on the VaR Charge amounts, the Clearing Fund amounts (at the NSCC level and Member level) and the effect on the Members during the Impact Study period. The Impact Study looked at the impacts during the Impact Study period as if all of the proposed changes had been made and did not look at the impacts of each of the proposed changes individually. The Impact Study indicated that the proposed changes would have resulted in a 10.66% increase for the daily total VaR Charge on average and would have resulted in a 4.04% increase in the daily total Clearing Fund on average during that period.

The three Members with the largest average daily VaR Charge increases in dollar amount during the Impact Study period would have had increases of \$60,113,514, \$30,054,385 and \$22,237,892 representing an average daily increase for such Members of 31.68%, 14.97% and 28.11%, respectively. The three Members with the largest average daily VaR Charge increases as a percentage of production Clearing Fund paid by such Members during the Impact Study period would have had an average daily increase of 31.78%, 29.07% and 28.99%, respectively, had the proposed changes been in place. Approximately 14% of Members would have had either a decrease or an increase of less than 1% in their average daily VaR Charge had the proposed changes been in place.

Prior to implementation of the proposed changes, NSCC would conduct Member outreach to discuss the proposed changes and the impact of the proposed changes on the Members. Following implementation, NSCC would also incorporate the proposed changes into the NSCC Risk Client Portal and VaR Calculator.

(i) Overview of the Required Fund Deposit and NSCC's Clearing Fund

As part of its market risk management strategy, NSCC manages its credit exposure to Members by determining the appropriate Required Fund Deposits to the Clearing Fund and monitoring its sufficiency, as provided for in the Rules.⁵ The Required Fund Deposit serves as each Member's margin.

The objective of a Member's Required Fund Deposit is to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event NSCC ceases to act for that Member (hereinafter referred to as a "default").⁶ The aggregate of all Members' Required Fund Deposits constitutes the Clearing Fund of NSCC. NSCC would access its Clearing Fund should a defaulting Member's own Required Fund Deposit be insufficient to satisfy losses to NSCC caused by the liquidation of that Member's portfolio.

The volatility component of each Member's Required Fund Deposit is designed to measure market price volatility of the start of day portfolio and is calculated for Members' Net Unsettled Positions and Net Unsettled Balance Order Positions

⁵ <u>See</u> Rule 4 (Clearing Fund) and Procedure XV (Clearing Fund Formula and Other Matters), <u>supra</u> note 4. NSCC's market risk management strategy is designed to comply with Rule 17Ad-22(e)(4) under the Act, where these risks are referred to as "credit risks." 17 CFR 240.17Ad-22(e)(4).

⁶ The Rules identify when NSCC may cease to act for a Member and the types of actions NSCC may take. For example, NSCC may suspend a firm's membership with NSCC or prohibit or limit a Member's access to NSCC's services in the event that Member defaults on a financial or other obligation to NSCC. <u>See</u> Rule 46 (Restrictions on Access to Services) of the Rules, <u>supra</u> note 4.

(hereinafter collectively referred to as "Net Unsettled Positions").⁷ The volatility component is designed to capture the market price risk⁸ associated with each Member's portfolio at a 99th percentile level of confidence. NSCC has two methodologies for calculating the volatility component – a "VaR Charge" and a haircut-based calculation. The VaR Charge applies to the majority of Net Unsettled Positions and is calculated as the greater of: (1) the larger of two separate calculations that utilize a parametric Value at Risk ("VaR") model ("Core Parametric Estimation"); (2) the calculation of the Gap Risk Measure, which is based on the concentration threshold of the largest non-index position in a portfolio, as described in greater detail below; and (3) a portfolio margin floor calculation based on the market values of the long and short positions in the portfolio ("Portfolio Margin Floor").⁹ The VaR Charge usually comprises the largest portion of a Member's Required Fund Deposit.

Certain Net Unsettled Positions are excluded from the calculation of the VaR Charge pursuant to Sections I(A)(1)(a)(ii) and I(A)(2)(a)(ii) of Procedure XV and are instead subject to a haircut-based calculation.¹⁰ The charge that is applied to a Member's Required Fund Deposit with respect to the volatility component is referred to as the

⁷ Net Unsettled Positions refer to net positions that have not yet passed their settlement date or did not settle on their settlement date. <u>See</u> Procedure XV (Clearing Fund Formula and Other Matters) of the Rules, <u>supra</u> note 4.

⁸ Market price risk refers to the risk that volatility in the market causes the price of a security to change between the execution of a trade and settlement of that trade. This risk is also referred to herein as market risk and volatility risk.

⁹ Procedure XV, Sections I(A)(1)(a)(i) and I(A)(2)(a)(i) of the Rules, <u>supra</u> note 4.

¹⁰ Procedure XV, Sections I(A)(1)(a)(ii) and I(A)(2)(a)(ii) of the Rules, <u>supra</u> note 4.

volatility charge and is the sum of the applicable VaR Charge and the haircut-based calculation.

NSCC regularly assesses the risks it may face as a central counterparty as such risks relate to its margining methodologies to evaluate whether margin levels are commensurate with the particular risk attributes of each relevant product, portfolio and market. In connection with this assessment, NSCC is proposing to enhance the Gap Risk Measure calculation. These proposed enhancements have been developed in response to regulatory feedback and in light of recent market events that led to a reconsideration of the idiosyncratic risks that the Gap Risk Measure is designed to mitigate, as described in greater detail below.

The proposed changes would enhance the calculation of the VaR Charge by making the result of the Gap Risk Measure calculation an additive component of the VaR Charge, rather than being applied as the VaR Charge only when it is the largest of three separate calculations. The proposed changes would modify the language relating to which positions are excluded from the Gap Risk Measure. The proposed changes would also adjust both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure, when applicable, to be based on the two largest positions in a portfolio, rather than based on the single largest position. The proposed changes would also adjust the calculation and description of the gap risk haircut and make certain other clarifications discussed below.

(ii) Overview of Idiosyncratic Risks and the Gap Risk Measure

The Gap Risk Measure was designed to address the risks presented by a portfolio that is more susceptible to the effects of gap risk events due to the idiosyncratic nature of the Net Unsettled Positions in that portfolio (such risks may be referred to as idiosyncratic risks).¹¹ Gap risk events have been generally understood as idiosyncratic issuer events (for example, earning reports, management changes, merger announcements, insolvency, or other unexpected, issuer-specific events) that cause a rapid shift in general market price volatility levels. The Gap Risk Measure is designed to address the risk that a gap risk event affects the price of a security in which a portfolio holds a Net Unsettled Position that represents more than a certain percent of the entire portfolio's value, such that the event could impact the entire portfolio's value. Currently, the Gap Risk Measure serves as a substitution to the calculation of the Core Parametric Estimation in case the Gap Risk Measure is greater in magnitude.

The risk of large, unexpected price movements, particularly those caused by a gap risk event, are more likely to have a greater impact on portfolios with large Net Unsettled Positions in securities that are susceptible to those events. Generally, index-based exchange-traded funds ("ETFs") that track closely to diversified indices are less prone to the effects of gap risk events. As such, if the concentration threshold is met, NSCC currently calculates the Gap Risk Measure for Net Unsettled Positions in the portfolio other than positions in ETFs that track diversified indices, as determined by NSCC from time to time ("non-index Net Unsettled Positions").

The Gap Risk Measure is only applied for a Member if the non-index Net Unsettled Position with the largest absolute market value in the portfolio represents more

 <u>See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, supra</u> note 4. <u>See also Securities Exchange Act Release Nos. 82780 (February 26, 2018), 83 FR 9035 (March 2, 2018) (SR-NSCC-2017-808); 82781 (February 26, 2018), 83 FR 9042 (March 2, 2018) (SR-NSCC-2017-020) ("Initial Filing").
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than a certain percent of the entire portfolio's value ("concentration threshold"). The concentration threshold was initially set at 30 percent of a Member's entire portfolio value.¹² The concentration threshold can be set no higher than 30 percent and is evaluated periodically based on Members' backtesting results over a twelve month look-back period to determine if it may be appropriate to lower the threshold.¹³ Currently, the concentration threshold is set at 5%.¹⁴

When applicable, NSCC calculates the Gap Risk Measure by multiplying the gross market value of the largest non-index Net Unsettled Position in the portfolio by a percent of not less than 10 percent ("gap risk haircut").¹⁵ Currently, NSCC determines the gap risk haircut empirically as no less than the larger of the 1st and 99th percentiles of three-day returns of a set of CUSIPs that are subject to the VaR Charge pursuant to the Rules, giving equal rank to each to determine which has the highest movement over that three-day period. NSCC uses a look-back period of not less than ten years that includes a one-year stress period. If the one-year stress period overlaps with the look-back period, only the non-overlapping period would be combined with the look-back period. The result is then rounded up to the nearest whole percentage.

NSCC is proposing changes to the calculation of the Gap Risk Measure that are designed to allow NSCC to apply this charge based on more than one position and more

¹⁵ <u>See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV, supra note 4.</u>

¹² <u>See Id.</u>

¹³ <u>Id.</u>

¹⁴ See Important Notice a9055, dated September 27, 2021, at <u>https://www.dtcc.com/-/media/Files/pdf/2021/9/27/a9055.pdf (notifying Members</u> that the concentration threshold had been changed from 10% to 5%).

frequently. Recent extreme market events, including both the impacts of the COVID-19 pandemic and volatility caused by social media sentiments (referred to as the "meme stock events"), have led NSCC to reconsider the causes and characteristics of idiosyncratic risks that the Gap Risk Measure was designed to mitigate. More specifically, these events have indicated that price changes due to gap risk events seem to occur more frequently and in higher severity; and may not be isolated to issuer events but driven by new mechanisms that drive concurrent market price moves involving unconventionally correlated securities. The Gap Risk Measure provides an insurance against various permutations of idiosyncratic risk moves, however, it is not targeted to capture and cover all such instances, especially when they are extreme, including certain meme stock events. NSCC believes the proposed enhancements to the Gap Risk Measure calculation, described below, would improve its ability to measure and mitigate against these idiosyncratic risks.

(iii) Proposed Changes to Enhance the Gap Risk Measure and Enhance Transparency

With a goal of enhancing the Gap Risk Measure to broaden the scope of gap risk event coverage, NSCC explored a number of alternatives in particular by (1) using the Gap Risk Measure as an additive component rather than a substitutive component of the VaR Charge and (2) applying the Gap Risk Measure to one or more positions in a portfolio. NSCC also conducted impact studies based on various permutations of the parameters and NSCC is proposing enhancements to the Gap Risk Measure that would improve NSCC's ability to mitigate against idiosyncratic risks as described below. NSCC is also proposing enhancements to the transparency of the Rules by making certain clarifications to the description of the Gap Risk Measure. NSCC is proposing to make the following enhancements to the Gap Risk Measure: (1) make the Gap Risk Measure an additive component of the Member's total VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modify the language relating to which ETF positions are excluded from the Gap Risk Measure, (3) adjust both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position,(4)(a) remove the description of the methodology in the Rules for calculating the gap risk haircut, (b) provide that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) change the floor of the gap risk haircut from 10 percent to 5 percent for the largest position and add a floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure.

Proposed Changes to Application and Calculation of the Gap Risk Measure

First, NSCC is proposing to make the result of the Gap Risk Measure calculation an additive component of Members' total VaR Charge, rather than applicable as the VaR Charge only when it is the highest result of three calculations. Following implementation of this proposed change, the total VaR Charge would be equal to the sum of (1) the greater of (a) the Core Parametric Estimation and (b) the Portfolio Margin Floor calculation; and (2) the Gap Risk Measure calculation. This proposed change would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which could improve NSCC's

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ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge. Rather than being applied only if the Gap Risk Measure calculation exceeds the Core Parametric Estimation and the Portfolio Margin Floor calculation, the Gap Risk Measure calculation would apply every time the top two positions exceed the concentration threshold. Based on impact studies, NSCC believes this broader application together with the other proposed changes outlined below would better protect against more idiosyncratic risk scenarios than the current methodology.

Second, NSCC is proposing to modify the Rules regarding the ETF positions that are excluded from the Gap Risk Measure calculation. The Rules currently state that only "non-index" positions are included in the Gap Risk Measure.¹⁶ NSCC is proposing to replace the reference to "non-index" positions with a reference to "non-diversified" positions and add a footnote to Sections I(A)(1)(a)(i) and I(A)(2)(a)(i) of Procedure XV of the Rules to state that NSCC would exclude ETF positions from the calculation if the ETFs have characteristics that indicate that such positions are less prone to the effects of gap risk events, as determined by NSCC from time to time. NSCC has determined that certain ETFs, both index based and non-index based, are less prone to the effects of gap risk events as a result of having certain characteristics and, therefore, are less likely to pose idiosyncratic risks that the Gap Risk Measure is designed to mitigate. Such characteristics include whether the ETF tracks to an index that is linked to a broad based market index, contains a diversified underlying basket, is unleveraged or tracks an asset class that is less prone to gap risk. For instance, NSCC has determined to include certain

<u>See</u> Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, <u>supra</u> note 6. <u>See also</u> Initial Filing, <u>supra</u> note 11.

commodity ETFs from the Gap Risk Measure that track to an index but that are not linked to a broad-based diversified commodity index. The proposed change would result in these commodity ETFs that track to an index but that are not linked to a broad-based diversified commodity index to be subject to the Gap Risk Measure whereas they are currently excluded. NSCC has determined to exclude certain non-index based ETFs from the Gap Risk Measure that track to an asset that are less prone to gap risk, such as unleveraged U.S. dollar based ETFs. The proposed change would result in certain nonindex based ETFs being excluded from the Gap Risk Measure whereas they are currently included.

NSCC currently identifies those positions that are less likely to pose idiosyncratic risks and excludes those positions from the calculation of the Gap Risk Measure.¹⁷ The proposed change would provide Members with further transparency regarding which positions are excluded from this calculation by reflecting that certain non-index ETFs that have characteristics that indicate that such positions are less prone to the effects of gap risk events would be excluded and by reflecting that index based ETFs would only be excluded if they have characteristics that indicate that such positions are less prone to the effects of gap risk events. NSCC would also indicate in the Rules that such characteristics include whether the ETF tracks to an index that is linked to a broad based market index, contains a diversified underlying basket, is unleveraged or tracks an asset class that is less prone to gap risk.

¹⁷ NSCC uses a third-party market provider to identify ETFs that meet its defined criteria of being diversified. ETFs that do not meet the criteria specified by NSCC are not included the Gap Risk Measure calculation.

Third, NSCC is proposing to adjust the trigger of the Gap Risk Measure to be based on the sum of the absolute values of the two largest non-diversified Net Unsettled Positions in a portfolio, rather than based on the absolute value of the single largest nondiversified Net Unsettled Position. More specifically, the Gap Risk Measure would be applicable if the sum of the absolute values of the two largest non-diversified Net Unsettled Positions in the portfolio represents more than the concentration threshold determined by NSCC from time to time.

In addition, the Gap Risk Measure would be calculated using the two largest nondiversified Net Unsettled Positions by multiplying each of the positions with a gap risk haircut and adding the sum of the resulting products. By applying the Gap Risk Measure to the two largest non-diversified positions in the portfolio, the Gap Risk Measure calculation would cover concurrent gap moves involving more than one concentrated position adding more flexibility and coverage to the Gap Risk Measure. The Gap Risk Measure charge for the two largest positions would also provide coverage for gap events for smaller positions in the portfolio.

Fourth, NSCC would be adjusting the calculation of the gap risk haircut and replacing the current description with a description like the description of the calculation for the concentration threshold. Currently, the gap risk haircut is determined by selecting the largest of the 1st and 99th percentiles of three day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one year stress period.¹⁸ With the current methodology, there is implicit overlapping of the risk covered by the core Parametric VaR and the Gap Risk Measure. Because NSCC would be using

¹⁸ <u>Id.</u>

the Gap Risk Measure as an additive component to the VaR Charge rather than a substitutive component, NSCC does not believe that the current methodology for the gap risk haircut would result in an appropriate level. Instead of using the current methodology to calculate the gap risk haircut, NSCC would determine and calibrate the concentration threshold and the gap risk haircut from time to time based on backtesting and impact analysis. More specifically, the concentration threshold and the gap risk haircuts would be selected from various combinations of concentration thresholds and gap risk haircuts based on backtesting and impact analysis across all member portfolios initially over a five year look-back period. This would provide more flexibility to set the parameters from time to time to provide improved backtesting performance, broader coverage for idiosyncratic risk scenarios and flexibility for model tuning to balance performance and cost considerations.

In connection with the proposed expansion of the calculation of the Gap Risk Measure to be based on the two largest non-diversified Net Unsettled Positions in the portfolio, NSCC is also proposing to lower the gap risk haircut that would be applied to the largest non-diversified Net Unsettled Position to be a percent that is no less than 5 percent. Currently, the percent that is applied to the largest non-index Net Unsettled Positions in the portfolio is no less than 10 percent.¹⁹ Given the proposed expansion of the calculation of the Gap Risk Measure to cover the two largest non-diversified Net Unsettled Positions, rather than only the single largest non-diversified Net Unsettled Position, NSCC believes it is appropriate to set a lower floor for the gap risk haircut that applies to the largest of those two positions. Given that the Gap Risk Measure would be

¹⁹ <u>Id.</u>

additive rather than a substitutive component of the VaR Charge and would be triggered more frequently, NSCC believes that the flexibility to set a lower floor for the largest position would be appropriate. The gap risk haircut that would be applied to the second largest non-diversified Net Unsettled Position in the portfolio would be no larger than the gap risk haircut that would be applied to the largest non-diversified Net Unsettled Position and would be subject to a floor of 2.5 percent.

Initially, upon implementation, NSCC would set the concentration threshold at 10%, apply a gap risk haircut on the largest Net Unsettled Position of 10% and a gap risk haircut on the second largest Net Unsettled Position of 5%. NSCC would set the concentration threshold and the gap risk haircuts based on backtesting and impact analysis from time to time in accordance with NSCC's model risk management practices and governance set forth in the Model Risk Management Framework ("Model Risk Management Framework").²⁰ NSCC's model risk management governance procedures include daily backtesting of model performance, periodic sensitivity analyses of models and annual validation of models. NSCC would review the concentration threshold and the gap risk haircuts at least annually. NSCC would provide notice to Members by

See Securities Exchange Act Release Nos. 81485 (August 25, 2017), 82 FR 41433 (August 31, 2017) (File No. SR-NSCC-2017-008); 84458 (October 19, 2018), 83 FR 53925 (October 25, 2018) (File No. SR-NSCC-2018-009), 88911 (May 20, 2020), 85 FR 31828 (May 27, 2020) (File No. SR-NSCC-2020-008), 92381 (July 13, 2021), 86 FR 38163 (July 19, 2021) (File No. SR-NSCC-2021-008), and 94272 (February 17, 2022), 87 FR 10419 (February 24, 2022) (File No. SR-NSCC-2022-001). The Model Risk Management Framework sets forth the model risk management practices adopted by NSCC.

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important notice of the concentration threshold and gap risk haircuts that it would be applying and changes to the concentration threshold and to the gap risk haircuts.

Therefore, upon implementation, to determine the Gap Risk Measure for each portfolio, NSCC would determine the two largest non-diversified positions in the portfolio. If the sum of the gross market values of those two positions represent more than the concentration threshold of 10% of the gross market value of the portfolio, NSCC would add (i) an amount equal to 10% of the gross market value of the largest position and (ii) an amount equal to 5% of the gross market value of the second largest position. The sum amount would be included in the volatility component of the Required Fund Deposit for that portfolio.

As described in the Initial Filing, the Gap Risk Measure is designed to measure concentration of positions in a portfolio, which is an important indicator of that portfolio's vulnerability to idiosyncratic risks. By expanding the applicability of the Gap Risk Measure to each time the concentration threshold is met, the proposed changes to enhance the calculation of the Gap Risk Measure, described above, would improve the effectiveness of the VaR Charge in mitigating against those risks.

Proposed Changes to Improve Transparency

Fifth, NSCC would make the following clarification changes to improve transparency in the Rules.

NSCC is proposing to remove the specific references to the concentration threshold as 30 percent in the definition to reflect that NSCC may adjust the concentration threshold from time to time, as determined by NSCC based on the backtesting results and impact analysis over a look-back period of no less than the previous 12 months.²¹ The Rules currently define the concentration threshold as more than 30 percent of the value of the entire portfolio.²² The Rules also provide that the concentration threshold would be no more than 30 percent and would be determined by NSCC from time to time.²³ The proposed changes would clarify that the concentration threshold is not fixed at 30 percent by defining concentration threshold as a percentage designated by the Corporation of the value of the entire portfolio which is determined by NSCC from time to time. The Rules would continue to state that the concentration threshold would be no more than 30 percent. NSCC believes this proposed change will help clarify that the concentration threshold could change from time to time but could not be set to be more than 30 percent.

NSCC would revise language relating to the application of the Gap Risk Measure to Securities Financing Transactions ("SFTs"). Rule 56 governs the SFT Clearing Service.²⁴ Section 12(c) of Rule 56 ("Section 12(c)") provides that NSCC shall calculate the amount of each SFT Member's required deposit for SFT Positions by applying the Clearing Fund Formula for CNS Transactions set forth in certain sections in Procedure XV.²⁵ Footnote 1 ("Footnote 1") in Section 12(c) provides that for purposes of applying the VaR Charge with respect to SFT Positions, NSCC shall apply the Gap Risk Measure

²³ <u>Id.</u>

²¹ <u>Id.</u>

See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, supra note 6. See also Initial Filing, supra note 11.

Rule 56, supra note 4.

²⁵ Section 12(c) of Rule 56, <u>supra</u> note 4.

as an additive component of the VaR Charge, which is consistent with how Net Unsettled Positions would be treated by the proposed changes.²⁶ Pursuant to Footnote 1, NSCC has been applying the Gap Risk Measure as an additive component of the VaR Charge with respect to SFT Positions but applying the Gap Risk Measure to other Net Unsettled Positions as a substitutive component as currently set forth in Procedure XV of the Rules. If the proposed changes contemplated by this filing were implemented, it would be unnecessary to distinguish how the Gap Risk Measure is calculated for SFT Positions because the Gap Risk Measure would be applied to SFT Positions in the same manner as it would be applied to other Net Unsettled Positions. As a result, NSCC is proposing to remove Footnote 1.

NSCC is also proposing to change the reference from "positions" to "Net Unsettled Positions" or "Net Balance Order Unsettled Positions", as applicable, to clarify that the positions subject to the Gap Risk Measure are Net Unsettled Positions. NSCC would also remove "the portfolio's" from the provision relating to how the concentration threshold and gap risk haircuts would be determined and calibrated because the reference is unnecessary. The same concentration threshold and gap risk haircuts would apply to all portfolios and would be calibrated based on backtesting and impact analysis of multiple portfolios. In addition, in accordance with the Model Risk Management

 $[\]frac{26}{1.(A)(1)(a)(i)} = 1, \frac{1}{2} \text{ mote } 4, \text{ which states "For the purpose of applying Section I.(A)(1)(a)(i)} of Procedure XV (Value-at-Risk (VaR) charge), the volatility of an SFT Member's SFT Positions shall be the sum of (a) the highest resultant value between Section I.(A)(1)(a)(i)II. (Core Parametric Estimation) and Section I.(A)(1)(a)(i)III. (Margin Floor) and (b) the resultant value of Section I.(A)(1)(a)(i)III. (Gap Risk Measure)."$

Framework,²⁷ NSCC conducts periodic impact analysis of its models, including impacts on NSCC and impacts on Members. As such, NSCC is proposing to include "impact analysis" in addition to backtesting results as a measure of what NSCC would review to determine and calibrate the concentration threshold and gap risk haircuts. NSCC is also proposing to replace "would" with "shall" in four places to reflect that it is referring to future actions. NSCC would add "gross market" in front of "value" in two places and replace "absolute" with "gross market" in two places to clarify that NSCC would be using the gross market value of the positions and the portfolio in the Gap Risk Measure calculations. NSCC would also add a sentence in the Gap Risk Measure sections indicating that NSCC would announce updates of the concentration threshold and gap risk haircuts by Important Notice.

Proposed Changes to NSCC Rules

The proposed changes described above would be implemented by amending the description of the VaR Charge in Sections I(A)(1)(a)(i) and I(A)(2)(a)(i) of Procedure XV of the Rules. The proposed changes would also move the descriptions of the Portfolio Margin Floor and the Gap Risk Measure to Sections I(A)(1)(a)(i)II and I(A)(2)(a)(i)II and Sections I(A)(1)(a)(i)III and I(A)(2)(a)(i)III of Procedure XV, respectively.

The proposed changes would amend the description of the VaR Charge to state that it would be equal to the sum of (1) the highest resultant value among Sections I(A)(1)(a)(i)I and I(A)(2)(a)(i)I (which describe the Core Parametric Estimation) and

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See Model Risk Management Framework, supra note 20.

Sections I(A)(1)(a)(i)II and I(A)(2)(a)(i)II (which would describe the Portfolio Margin Floor); and (2) the resultant value of Sections I(A)(1)(a)(i)III and I(A)(2)(a)(i)III (which would describe the Gap Risk Measure).

The proposed changes would amend the description of the Gap Risk Measure to refer to the two largest non-diversified Net Unsettled Positions in the portfolio, rather than the largest non-index position, as described above, would include a footnote in this description to clarify which positions are excluded from the calculation of the Gap Risk Measure and make the other changes described above in proposed Sections I(A)(1)(a)(i)III and I(A)(2)(a)(i)III.

The proposed changes would also remove Footnote 1 from Rule 56 as described above.

(iv) Implementation Timeframe

NSCC would implement the proposed changes no later than 60 Business Days after the later of the approval of the proposed rule change and the no objection to the advance notice²⁸ by the Commission. NSCC would announce the effective date of the proposed changes by Important Notice posted to its website.

2. <u>Statutory Basis</u>

NSCC believes that the proposed changes are consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing

²⁸ NSCC filed this proposed rule change as an advance notice (File No. SR-NSCC-2022-802) with the Commission pursuant to Section 806(e)(1) of Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010, 12 U.S.C. 5465(e)(1), and Rule 19b-4(n)(1)(i) under the Act, 17 CFR 240.19b-4(n)(1)(i). A copy of the advance notice is <u>available at https://www.dtcc.com/legal/sec-rule-filings.aspx.</u>

agency. In particular, NSCC believes the proposed changes are consistent with Section 17A(b)(3)(F) of the Act,²⁹ and Rules 17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii), each promulgated under the Act,³⁰ for the reasons described below.

Section 17A(b)(3)(F) of the Act requires that the rules of NSCC be designed to, among other things, assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible and promote the prompt and accurate clearance and settlement of securities transactions.³¹ As discussed above, NSCC is proposing enhancements to the Gap Risk Measure portion of the VaR Charge, one of the components of its Members' Required Deposits – a key tool that NSCC uses to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event of Member default. NSCC believes the proposed changes are designed to assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible because they are designed to enable NSCC to better limit its exposure to Members in the event of a Member default. More specifically, the proposal would expand the applicability of the Gap Risk Measure and NSCC's ability to collect amounts calculated through this component, which is designed to mitigate idiosyncratic risks that NSCC may face.

In its review of the Gap Risk Measure, NSCC conducted impact studies adjusting differing parameters and thresholds to determine a model that would provide improved backtesting performance, broader coverage for idiosyncratic risk scenarios and flexibility

³⁰ 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii).

²⁹ 15 U.S.C. 78q-1(b)(3)(F).

³¹ 15 U.S.C. 78q-1(b)(3)(F).

for model tuning to balance performance and cost considerations to Members. Based on the impact studies, NSCC determined that the following enhancements to the Gap Risk Measure described above would enhance the flexibility of the Gap Risk Measure to broaden the scope of gap risk event coverage and to use parameters to allow for coverage of larger gap moves: (1) making the Gap Risk Measure an additive component of the Member's total VaR Charge when it is applicable, rather than being applied as the applicable VaR Charge when it is the largest of three separate calculations, (2) modifying the language relating to which ETF positions are excluded from the Gap Risk Measure, (3) adjusting both the trigger for applying the Gap Risk Measure and the calculation of the Gap Risk Measure to be based on the two largest positions in a portfolio, rather than based on the single largest position and (4)(a) removing the description of the methodology in the Rules for calculating the gap risk haircut, (b) providing that, like the concentration threshold, gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis and (c) changing the floor of the gap risk haircut from 10 percent to 5 percent for the largest position and adding a floor of the gap risk haircut of 2.5 percent for the second largest position subject to the Gap Risk Measure ("Gap Risk Measure Enhancements").

The Clearing Fund is a key tool that NSCC uses to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event of Member default. Therefore, the Gap Risk Measure Enhancements would enable NSCC to better address the potential idiosyncratic risks that it may face when liquidating a portfolio that contains a concentration of positions, such that, in the event of Member default, NSCC's operations would not be disrupted, and non-defaulting Members would not be exposed to

losses they cannot anticipate or control. In particular, making the Gap Risk Measure additive would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which would improve NSCC's ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge and better protect against more idiosyncratic risk scenarios than the current methodology. Modifying ETF positions that are subject to the Gap Risk Measure based on whether they are non-diversified rather than whether they are non-index would allow NSCC to more accurately determine which ETFs should be included and excluded from the Gap Risk Measure based on characteristics that indicate that such ETFs are more or less prone to the effects of gap risk events. Adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio would cover concurrent gap moves involving more than one concentrated position providing more coverage of the Gap Risk Measure. Removing specific methodology metrics relating to the gap risk haircuts and adding that gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis, lowering the floor for the gap risk haircut that applies to the largest of the two largest nondiversified Net Unsettled Positions and setting a floor of 2.5 percent for the second largest non-diversified Net Unsettled Positions would allow NSCC to calibrate and set appropriate gap risk haircuts based on the Gap Risk Measure being additive rather than a substitutive component to the VaR Charge. In this way, the proposed rule change to introduce the Gap Risk Measure Enhancements are designed to assure the safeguarding

of securities and funds which are in the custody or control of NSCC or for which it is responsible, consistent with Section 17A(b)(3)(F) of the Act.³²

NSCC also believes the proposed changes to provide transparency to the Rules by (a) removing the references to 30 percent as the concentration threshold to reflect that it is adjusted from time, (b) removing Footnote 1 relating to the application of Gap Risk Measure for SFT Positions from Rule 56, (c) changing the reference from "positions" to "Net Unsettled Positions" or "Net Balance Order Unsettled Positions", as applicable, (d) removing the unnecessary reference to "the portfolio's" in reference to backtesting results, (e) including a reference to "impact analysis" as a measure of what NSCC would review to determine and calibrate the concentration threshold and gap risk haircuts, (f) replacing "would" with "shall" in four places, (g) clarifying that the calculations would be referring to the gross market value of the positions and portfolios, and (h) adding a sentence indicating that NSCC would announce updates of the concentration threshold and gap risk haircuts by Important Notice ("Transparency Enhancements") are consistent with the requirements of Section 17A(b)(3)(F) of the Act.³³ Specifically, by enhancing the transparency of the Rules, the proposed changes would allow Members to more efficiently and effectively conduct their business in accordance with the Rules, which NSCC believes would promote the prompt and accurate clearance and settlement of securities transactions.

Rule 17Ad-22(e)(4)(i) under the Act requires, in part, that NSCC establish, implement, maintain and enforce written policies and procedures reasonably designed to

³³ <u>Id.</u>

³² <u>Id.</u>

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effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by maintaining sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.³⁴

As described above, NSCC believes that the proposed changes would enable it to better identify, measure, monitor, and, through the collection of Members' Required Fund Deposits, manage its credit exposures to Members by maintaining sufficient resources to cover those credit exposures fully with a high degree of confidence. Specifically, NSCC believes that the Gap Risk Measure Enhancements would provide improved backtesting performance, broader coverage for idiosyncratic risk scenarios and flexibility for model tuning to balance performance and cost considerations to Members, and would address the potential increased risks NSCC may face related to its ability to liquidate a portfolio that is susceptible to such risks in the event of a Member default. In particular, making the Gap Risk Measure additive would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which would improve NSCC's ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge and better protect against more idiosyncratic risk scenarios than the current methodology. Modifying ETF positions that are subject to the Gap Risk Measure based on whether they are non-diversified rather than whether they are non-index would allow NSCC to more accurately determine which ETFs should be included and excluded from the Gap Risk

³⁴ 17

¹⁷ CFR 240.17Ad-22(e)(4)(i).

Measure based on characteristics that indicate that such ETFs are more or less prone to the effects of gap risk events. Adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio would cover concurrent gap moves involving more than one concentrated position providing more coverage of the Gap Risk Measure. Removing specific methodology metrics relating to the gap risk haircuts and adding that gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis, lowering the floor for the gap risk haircut that applies to the largest of the two largest non-diversified Net Unsettled Positions and setting a floor of 2.5 percent for the second largest non-diversified Net Unsettled Positions would allow NSCC to calibrate and set appropriate gap risk haircuts based on the Gap Risk Measure being additive rather than a substitutive component to the VaR Charge. NSCC compared a number of different models for the Gap Risk Measure with different parameters and thresholds, including the Gap Risk Measure Enhancements and determined that the Gap Risk Measure Enhancements improved backtesting performance, provided broader coverage for idiosyncratic risk scenarios and flexibility for model tuning to balance performance and cost considerations to Members.

Therefore, NSCC believes that the proposal would enhance NSCC's ability to effectively identify, measure and monitor its credit exposures and would enhance its ability to maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. As such, NSCC believes the proposed changes are consistent with Rule 17Ad-22(e)(4)(i) under the Act.³⁵

³⁵ <u>Id.</u>

Rule 17Ad-22(e)(6)(i) under the Act requires, in part, that NSCC establish, implement, maintain and enforce written policies and procedures reasonably designed to cover its credit exposures to its participants by establishing a risk-based margin system that, at a minimum, considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market.³⁶

The Required Fund Deposits are made up of risk-based components (as margin) that are calculated and assessed daily to limit NSCC's credit exposures to Members, including the VaR Charge. NSCC's proposed Gap Risk Measure Enhancements are designed to more effectively address the risks presented by a portfolio that meets the concentration threshold and, therefore, is more susceptible to the impacts of idiosyncratic risks. NSCC believes the enhanced VaR Charge, as a result of the Gap Risk Measure Enhancements would enable NSCC to assess a more appropriate level of margin that accounts for these risks. In particular, making the Gap Risk Measure additive would allow NSCC to collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met which would improve NSCC's ability to mitigate idiosyncratic risks that it could face through the collection of the VaR Charge and better protect against more idiosyncratic risk scenarios than the current methodology. Rather than being applied only if the Gap Risk Measure calculation exceeds the Core Parametric Estimation and the Portfolio Margin Floor calculation, the Gap Risk Measure calculation would apply every time the top two positions exceed the concentration threshold. Based on impact studies, NSCC believes this broader application together with the other proposed changes outlined below would better protect

³⁶ 17 CFR 240.17Ad-22(e)(6)(i).

against more idiosyncratic risk scenarios than the current methodology Modifying ETF positions that are subject to the Gap Risk Measure based on whether they are nondiversified rather than whether they are non-index would allow NSCC to more accurately determine which ETFs should be included and excluded from the Gap Risk Measure based on characteristics that indicate that such ETFs are more or less prone to the effects of gap risk events. Adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio would cover concurrent gap moves involving more than one concentrated position providing more coverage of the Gap Risk Measure. Removing specific methodology metrics relating to the gap risk haircuts and adding that gap risk haircuts would be calibrated from time to time based on backtesting and impact analysis, lowering the floor for the gap risk haircut that applies to the largest of the two largest non-diversified Net Unsettled Positions and setting a floor of 2.5 percent for the second largest non-diversified Net Unsettled Positions would allow NSCC to calibrate and set appropriate gap risk haircuts based on the Gap Risk Measure being additive rather than a substitutive component to the VaR Charge. These proposed changes are designed to assist NSCC in maintaining a risk-based margin system that considers, and produces margin levels commensurate with, the risks and particular attributes of portfolios that meet the concentration threshold, as applied through the current methodology. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(i) under the Act.³⁷

³⁷ <u>Id.</u>

Rule 17Ad-22(e)(23)(ii) under the Act requires, in part, that NSCC establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency.³⁸ By making the proposed Transparency Enhancements, the proposed changes would improve the transparency of the Rules. By providing Members with additional information that would enable them to evaluate the risks and material costs they incur by participating in NSCC, NSCC believes the proposed change is consistent with the requirements of Rule 17Ad-22(e)(23)(ii).³⁹

(B) <u>Clearing Agency's Statement on Burden on Competition</u>

NSCC does not believe the proposed Transparency Enhancements would impact competition. These proposed rule changes would merely enhance the transparency of the Rules. Therefore, this proposed changes would not affect NSCC's operations or the rights and obligations of Members. As such, NSCC believes this proposed rule change to improve the transparency of the Rules would not have any impact on competition.

NSCC believes that the Gap Risk Measure Enhancements could have an impact on competition. Specifically, NSCC believes the proposed changes could burden competition because they would result in larger Required Fund Deposit amounts for Members when the additional charges are applicable and result in a Required Fund Deposit that is greater than the amount calculated pursuant to the current formula.

³⁸ 17 CFR 240.17Ad-22(e)(23)(ii).

³⁹ <u>Id.</u>

When the proposal results in a larger Required Fund Deposit, the Gap Risk Measure Enhancements could burden competition for Members that have lower operating margins or higher costs of capital compared to other Members. However, the increase in Required Fund Deposit would be in direct relation to the specific risks presented by each Member's Net Unsettled Positions, and each Member's Required Fund Deposit would continue to be calculated with the same parameters and at the same confidence level for each Member. Therefore, Members that present similar Net Unsettled Positions, regardless of the type of Member, would have similar impacts on their Required Fund Deposit amounts. As such NSCC believes that any burden on competition imposed by the proposed changes would not be significant and, further, would be both necessary and appropriate in furtherance of NSCC's efforts to mitigate risks and meet the requirements of the Act, as described in this filing and further below.

NSCC believes the above described burden on competition that may be created by the proposed enhancement of the VaR Charge through the expansion of the Gap Risk Measure would be necessary in furtherance of the Act, specifically Section 17A(b)(3)(F) of the Act.⁴⁰ As stated above, the proposed Gap Risk Measure Enhancements would improve NSCC's ability to mitigate against idiosyncratic risks that are presented by portfolios that meet the concentration threshold, including the risks related to gap risk events that are not driven by issuer events. Therefore, NSCC believes this proposed change is consistent with the requirements of Section 17A(b)(3)(F) of the Act, which

⁴⁰ 15 U.S.C. 78q-1(b)(3)(F).

requires that the Rules be designed to assure the safeguarding of securities and funds that are in NSCC's custody or control or which it is responsible.⁴¹

NSCC believes these proposed changes would also support NSCC's compliance with Rules 17Ad-22(e)(4)(i) and Rule 17Ad-22(e)(6)(i) under the Act, which require NSCC to establish, implement, maintain and enforce written policies and procedures reasonably designed to (x) effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by maintaining sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence; and (y) cover its credit exposures to its participants by establishing a risk-based margin system that, at a minimum, considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market.⁴²

As described above, NSCC believes the proposed Gap Risk Measure Enhancements would allow NSCC to employ a risk-based methodology to address the increased idiosyncratic risks presented by the occurrence of gap risk events that are presented by portfolios that meet the concentration threshold. Therefore, the proposed changes would better limit NSCC's credit exposures to Members, consistent with the requirements of Rules 17Ad-22(e)(4)(i) and Rule 17Ad-22(e)(6)(i) under the Act.⁴³

NSCC believes that the above-described burden on competition that could be created by the proposed changes would be appropriate in furtherance of the Act because

⁴¹ <u>Id.</u>

⁴² 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i).

⁴³ <u>Id.</u>

such changes have been appropriately designed to assure the safeguarding of securities and funds which are in the custody or control of NSCC or for which it is responsible, as described in detail above. The proposed enhancement to the VaR Charge through the expansion of the Gap Risk Measure would enable NSCC to produce margin levels more commensurate with the risks and particular attributes of each Member's portfolio.

The proposed changes would do this by continuing to apply the Gap Risk Measure only when the concentration threshold is met. The proposed change to expand the sensitivity of the charge to refer to the two largest non-diversified Net Unsettled Positions in the portfolio would provide NSCC with a better measure of the various and unexpected idiosyncratic risks it may face, in light of the recent gap risk events that did not derive from issuer events. Therefore, because the proposed changes are designed to provide NSCC with an appropriate measure of the risks (*i.e.*, risks related to gap risk events) presented by Members' portfolios, NSCC believes the proposal is appropriately designed to meet its risk management goals and its regulatory obligations.

NSCC believes that it has designed the proposed changes in an appropriate way in order to meet compliance with its obligations under the Act. Specifically, the proposals would improve the risk-based margining methodology that NSCC employs to set margin requirements and better limit NSCC's credit exposures to its Members. Therefore, as described above, NSCC believes the proposed changes are necessary and appropriate in furtherance of NSCC's obligations under the Act, specifically Section 17A(b)(3)(F) of the Act⁴⁴ and Rule 17Ad-22(e)(4)(i) and Rule 17Ad-22(e)(6)(i) under the Act.⁴⁵

⁴⁴ 15 U.S.C. 78q-1(b)(3)(F).

⁴⁵ 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i).

(C) <u>Clearing Agency's Statement on Comments on the Proposed Rule Change</u> <u>Received from Members, Participants, or Others</u>

NSCC has not received or solicited any written comments relating to this proposal. If any written comments are received, they will be publicly filed as an Exhibit 2 to this filing, as required by Form 19b-4 and the General Instructions thereto.

Persons submitting comments are cautioned that, according to Section IV (Solicitation of Comments) of the Exhibit 1A in the General Instructions to Form 19b-4, the Commission does not edit personal identifying information from comment submissions. Commenters should submit only information that they wish to make available publicly, including their name, email address, and any other identifying information.

All prospective commenters should follow the Commission's instructions on how to submit comments, available at https://www.sec.gov/regulatory-actions/how-to-submit-comments. General questions regarding the rule filing process or logistical questions regarding this filing should be directed to the Main Office of the Commission's Division of Trading and Markets at tradingandmarkets@sec.gov or 202-551-5777.

NSCC reserves the right not to respond to any comments 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 <u>Federal Register</u> or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) by order approve or disapprove such proposed rule change, or

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(B) institute proceedings to determine whether the proposed rule change should be disapproved.

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

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change 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. Please include File Number SR-NSCC-2022-015 on the subject line.

Paper Comments:

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

All submissions should refer to File Number SR-NSCC-2022-015. This file

number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (http://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of NSCC and on DTCC's website (https://dtcc.com/legal/sec-rulefilings.aspx). 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-NSCC-2022-015 and should be submitted on or before [insert date 21 days from publication in the <u>Federal</u> <u>Register</u>].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.⁴⁶

Secretary

⁴⁶ 17 CFR 200.30-3(a)(12).

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EXHIBIT 3b

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EXHIBIT 5



NATIONAL SECURITIES CLEARING CORPORATION

RULES & PROCEDURES

TEXT OF PROPOSED RULE CHANGE

Bold and underlined text indicates proposed added language.

Bold and strikethrough text indicates proposed deleted language.

Bold, underlined and shaded text indicates proposed added language in connection with a separate proposal that has been filed with the SEC but not yet approved (SR-NSCC-2022-009).

RULE 56. SECURITIES FINANCING TRANSACTION CLEARING SERVICE

[Changes to this Rule 56, as amended by File Nos. SR-NSCC-2022-015 and SR-NSCC-2022-802 are available at https://www.dtcc.com/-/media/Files/Downloads/legal/rulefilings/2022/NSCC/SR-NSCC-2022-015.pdf and at https://www.dtcc.com/~/media/Files/Downloads/legal/rulefilings/2021/NSCC/SR-NSCC-2022-802.pdf, respectively. These changes have been approved by the SEC but have not yet been implemented. By no later than 60 business days after the approval of SR-NSCC-2022-015 and the no objection to SR-NSCC-2022-802 by the SEC, these changes will be implemented. The Corporation will issue an Important Notice when these changes are implemented, and this legend will automatically be removed from this Rule 56.]

* * *

SEC. 12. Clearing Fund Obligations.

(a) Each SFT Member, other than an SFT Member that is a Sponsored Member, shall make and maintain on an ongoing basis a deposit to the Clearing Fund with respect to its SFT Positions (the "SFT Deposit"). For the avoidance of doubt, the SFT Positions for an SFT Member that is a Sponsoring Member shall include all SFT Positions held in its Sponsored Member Sub-Account(s) in addition to its proprietary account(s).

(b) The SFT Deposit shall be held by the Corporation or its designated agents as part of the Clearing Fund, to be applied as provided in Sections 1 through 12 of Rule 4.

(c) The Corporation shall calculate the amount of each such SFT Member's required deposit for SFT Positions, subject to a \$250,000 minimum (excluding the minimum contribution to the Clearing Fund as required by Procedure XV, Section II.(A)), by applying the Clearing Fund formula for CNS Transactions in Sections I.(A)(1)(a),⁴ (b), (c), (e), (f), (g)² of Procedure XV as well as the additional Clearing Fund formula in Section I.(B)(5) (Intraday Mark-to-Market Charge) and (6) (intraday volatility charge)

⁴ For the purpose of applying Section I.(A)(1)(a)(i) of Procedure XV (Value-at-Risk (VaR) charge), the volatility of an SFT Member's SFT Positions shall be the sum of (a) the highest resultant value between Section I.(A)(1)(a)(i)I. (Core Parametric Estimation) and Section I.(A)(1)(a)(i)II. (Margin Floor) and (b) the resultant value of Section I.(A)(1)(a)(i)II. (Gap Risk Measure).

For the purpose of applying Section I.(A)(1)(g) of Procedure XV (Margin Liquidity Adjustment (MLA) charge), SFT Positions shall be aggregated with Net Unsettled Positions, as defined in Rule 1, in the same asset group or subgroup; provided, however, in the event such aggregation results in a reduction of the aggregate positions in the relevant asset group or subgroup, the Corporation shall apply the greater of (a) the sum of MLA charges separately calculated for SFT Positions and Net Unsettled Positions in the asset group or subgroup and (b) the MLA charge calculated from aggregating the SFT Positions and the Net Unsettled Positions in the asset group or subgroup.

of Procedure XV, except as noted otherwise, in the same manner as such sections apply to CNS Transactions submitted to the Corporation for regular way settlement, plus, with respect to any Non-Returned SFT, an additional charge that is calculated by (x) multiplying the Current Market Price of the SFT Securities that are the subject of such Non-Returned SFTs by the number of such SFT Securities that are the subject of the SFT and (y) multiplying such product by (i) 5% for SFT Members rated 1 through 4 on the Credit Risk Rating Matrix, (ii) 10% for SFT Members rated 5 or 6 on the Credit Risk Rating Matrix, or (iii) 20% for SFT Members rated 7 on the Credit Risk Rating Matrix shall be applied to each SFT Member that is a party thereto (collectively, the "Required SFT Deposit"); provided, however, notwithstanding anything to the contrary, (x) a minimum of 40% of an SFT Member's Required SFT Deposit shall be made in the form of cash and/or Eligible Clearing Fund Treasury Securities and (y) the lesser of \$5,000,000 or 10% of an SFT Member's Required SFT Deposit, with a minimum of \$250,000, must be made and maintained in cash; provided, further, the additional Clearing Fund formula in Sections I.(B)(1) (Additional Deposits for Members on the Watch List); (2) (Excess Capital Premium); (3) (Backtesting Charge); (4) (Bank Holiday Charge): Minimum Clearing Fund and Additional Deposit Requirements in Sections II.(A)1(a) – (b), II.(B), II.(C), and II.(D); as well as Section III (Collateral Value of Eligible Clearing Fund Securities) of Procedure XV shall apply to SFT Members in the same manner as such sections apply to Members.

* *

PROCEDURE XV. CLEARING FUND FORMULA AND OTHER MATTERS³

*

[Changes to this Procedure XV, as amended by File Nos. SR-NSCC-2022-015 and SR-NSCC-2022-802 are available at https://www.dtcc.com/-/media/Files/Downloads/legal/rulefilings/2022/NSCC/SR-NSCC-2022-015.pdf and at https://www.dtcc.com /~/media/Files/Downloads/legal/rulefilings/2021/NSCC/SR-NSCC-2022-802.pdf, respectively. These changes have been approved by the SEC but have not yet been implemented. By no later than 60 business days after the approval of SR-NSCC-2022-015 and the no objection to SR-NSCC-2022-802 by the SEC, these changes will be implemented. The Corporation will issue an Important Notice when these changes are implemented, and this legend will automatically be removed from this Procedure XV.]

I.(A) Clearing Fund Formula for Members

Each Member of the Corporation, except as otherwise provided in this Procedure, is required to contribute to the Clearing Fund maintained by the Corporation an amount calculated by the Corporation equal to:

(1) For CNS Transactions

³ All calculations shall be performed daily or, if the Corporation deems it appropriate, on a more frequent basis.

(a) (i) The volatility of such Member's Net Unsettled Positions, which shall be <u>the</u> <u>sum of (1)</u> the highest resultant value among <u>the followingl and II below, and</u> <u>(2) the resultant value of III below</u>:

I. an estimation of volatility calculated in accordance with any generally accepted portfolio volatility model including, but not limited to, any margining formula employed by any other clearing agency registered under Section 17A of the Exchange Act, provided, however, that not less than two standard deviations' volatility shall be calculated under any model chosen. Such calculation shall be made utilizing (1) such assumptions and based on such historical data as the Corporation deems reasonable and shall cover such range of historical volatility as the Corporation from time to time deems appropriate; and (2) each of the following estimations:

- A. an exponentially-weighted moving average volatility estimation using a decay factor of less than 1, and
- B. an evenly-weighted volatility estimation using a look-back period of not less than 253 days.

The higher of the two estimations described in (A) and (B) above, shall be the "Core Parametric Estimation".

In calculating these estimations of volatility, the Corporation shall include an additional bid-ask spread risk charge measured by multiplying the gross market value of each Net Unsettled Position by a basis point charge, where the applicable basis point charge shall be reviewed at least annually and shall be based on the following groups: (i) large and medium capitalization equities, (ii) small capitalization equities, (iii) microcapitalization equities, and (iv) exchange traded products ("ETPs").

II. if the absolute value of the largest non-index position in the portfolio represents more than 30 percent of the value of the entire portfolio (the "concentration threshold"), an amount determined by multiplying the gross market value of such position by a percentage designated by the Corporation, which percentage shall be not less than 10 percent. Such percentage shall be determined by selecting the largest of the 1st and 99th percentiles of three-day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one-year stress period,⁴ and then rounding the result up to the nearest whole percentage.

⁴ If the one-year stress period overlaps with the ten-year look-back, only the non-overlapping period will be combined with the look-back window.

The concentration threshold would be no more than 30 percent, and would be determined by the Corporation from time to time and calibrated based on the portfolio's backtesting results during a time period of not less than the previous 12 months.

- III. the sum of:
 - A. the net directional market value of the portfolio, which shall be the absolute difference between the market value of the long positions and the short positions in the portfolio, multiplied by a percentage; such percentage shall be determined by the Corporation based on a percentile of the annual historical volatility levels of relevant equity indices (which shall be no less than the historical minimum volatility of the indices), as determined by the Corporation from time to time; and
 - B. the balanced market value of the portfolio, which shall be the lowest corresponding market value of long positions and short positions in the portfolio, multiplied by a percentage; such percentage shall be a fraction of the percentage used in (A) above, determined by the Corporation from time to time by considering the model backtesting performance of the applicable balanced portfolios.

III. if the <u>sum of the absolute gross market</u> value<u>s</u> of the <u>two</u> largest <u>non-diversified non-index position Net Unsettled Positions⁵ in the</u> portfolio represents <u>a percentage designated by the Corporation from</u> <u>time to time more than 30 percent</u> of the <u>gross market</u> value of the entire portfolio (the "concentration threshold"), an amount determined by <u>adding the sum of:</u>

- A. the product of multiplying (1) the gross market value of such the largest non-diversified Net Unsettled Position position by and (2) a percentage designated by the Corporation (the "gap risk haircut"), which percentage shall be not less than 105 percent; and
- B. the product of (1) the gross market value of the second largest non-diversified Net Unsettled Position and (2) a gap risk haircut, which shall be no larger than the gap risk haircut applied to the largest Net Unsettled Position

⁵ The Corporation shall exclude exchange-traded fund positions from the calculation if the positions have characteristics that indicate that they are less prone to the effects of gap risk events, as determined by the Corporate from time to time. Such characteristics include whether the exchange-traded fund positions track to an index that is linked to a broad based market index, contain a diversified underlying basket, are unleveraged or track to an asset class that is less prone to gap risk.

and which shall be not less than 2.5 percent. Such percentage shall be determined by selecting the largest of the 1st and 99th percentiles of three-day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one-year stress period,⁶ and then rounding the result up to the nearest whole percentage.

The concentration threshold <u>shallwould</u> be no more than 30 percent₇. <u>The concentration threshold</u> and <u>the gap risk haircuts shallwould</u> be determined by the Corporation from time to time and calibrated based on <u>the portfolio's</u> backtesting <u>results</u> <u>and impact analysis</u> during a time period of not less than the previous 12 months. <u>The Corporation would</u> <u>announce updates of the concentration threshold and gap risk</u> <u>haircuts by Important Notice.</u>

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(2) For Balance Order Transactions

(a) (i) The volatility of such Member's Net Balance Order Unsettled Positions, which shall be <u>the sum of (1)</u> the highest resultant value among <u>the following</u> <u>and II below, and (2) the resultant value of III below</u>:

I. an estimation of volatility calculated in accordance with any generally accepted portfolio volatility model, including, but not limited to, any margining formula employed by any other clearing agency registered under Section 17A of the Exchange Act, provided, however, that not less than two standard deviations' volatility shall be calculated under any model chosen. Such calculation shall be made utilizing (1) such assumptions and based on such historical data as the Corporation deems reasonable and shall cover such range of historical volatility as the Corporation from time to time deems appropriate; and (2) each of the following estimations:

- A. an exponentially-weighted moving average volatility estimation using a decay factor of less than 1, and
- B. an evenly-weighted volatility estimation using a look-back period of not less than 253 days.

The higher of the two estimations described in (A) and (B) above, shall be the "Core Parametric Estimation".

³ If the one-year stress period overlaps with the ten-year look-back, only the non-overlapping period will be combined with the look-back window.

In calculating these estimations of volatility, the Corporation shall include an additional bid-ask spread risk charge measured by multiplying the gross market value of each Net Balance Order Unsettled Position by a basis point charge, where the applicable basis point charge shall be reviewed at least annually and shall be based on the following risk groups: (i) large and medium capitalization equities, (ii) small capitalization equities, (iii) micro-capitalization equities, and (iv) ETPs.

II. if the absolute value of the largest non-index position in the portfolio represents more than 30 percent of the value of the entire portfolio (the "concentration threshold"), an amount determined by multiplying the gross market value of such position by a percentage designated by the Corporation, which percentage shall be not less than 10 percent. Such percentage shall be determined by selecting the largest of the 1st and 99th percentiles of three-day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one-year stress period,⁷ and then rounding the result up to the nearest whole percentage.

The concentration threshold would be no more than 30 percent, and would be determined by the Corporation from time to time and calibrated based on the portfolio's backtesting results during a time period of not less than the previous 12 months.

- III. the sum of:
 - A. the net directional market value of the portfolio, which shall be the absolute difference between the market value of the long positions and the short positions in the portfolio, multiplied by a percentage; such percentage shall be determined by the Corporation based on a percentile of the annual historical volatility levels of relevant equity indices (which shall be no less than the historical minimum volatility of the indices), as determined by the Corporation from time to time; and
 - B. the balanced market value of the portfolio, which shall be the lowest corresponding market value of long positions and short positions in the portfolio, multiplied by a percentage; such percentage shall be a fraction of the percentage used in (A) above, determined by the Corporation from time to time by considering the model backtesting performance of the applicable balanced portfolios.

⁷ If the one-year stress period overlaps with the ten-year look-back, only the non-overlapping period will be combined with the look-back window.

III. if the <u>sum of the absolute gross market</u> values of the <u>two</u> largest <u>non-diversified non-index position Net Balance Order Unsettled</u> <u>Positions⁴</u> in the portfolio represents more than <u>a percentage</u> <u>designated by the Corporation from time to time 30 percent of the</u> <u>value</u> of the <u>gross market value of the</u> entire portfolio-(the "concentration threshold"), an amount determined by <u>adding the sum of:</u>

- <u>A.</u> multiplying the product of (1) the gross market value of such the largest non-diversified Net Balance Order Unsettled Positionposition by a percentage designated by the Corporation and (2) the gap risk haircut, which percentage shall be not less than 105 percent; and
- B. the product of (1) the gross market value of the second largest non-diversified Net Balance Order Unsettled Position and (2) a gap risk haircut, which shall be no larger than the gap risk haircut applied to the largest Net Balance Order Unsettled Position and which shall be not less than 2.5 percent. Such percentage shall be determined by selecting the largest of the 1st and 99th percentiles of three-day returns of a composite set of equities, using a look-back period of not less than 10 years that includes a one-year stress period,⁹ and then rounding the result up to the nearest whole percentage.

The concentration threshold <u>shallwould</u> be no more than 30 percent₇. <u>The concentration threshold</u> and <u>the gap risk haircuts shallwould</u> be determined by the Corporation from time to time and calibrated based on <u>the portfolio's</u>-backtesting <u>results and impact analysis</u> during a time period of not less than the previous 12 months. <u>The Corporation would</u> <u>announce updates of the concentration threshold and gap risk</u> <u>haircuts by Important Notice</u>.

* * *

<u>The Corporation shall exclude exchange-traded fund positions from the calculation if the positions have characteristics that indicate that they are less prone to the effects of gap risk events, as determined by the Corporate from time to time. Such characteristics include whether the exchange-traded fund positions track to an index that is linked to a broad based market index, contain a diversified underlying basket, are unleveraged or track to an asset class that is less prone to gap risk.</u>

⁹ If the one-year stress period overlaps with the ten-year look-back, only the non-overlapping period will be combined with the look-back window.