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SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
Form 19b-4

File No. \* SR 2022 - \* 802

Amendment No. (req. for Amendments \*)

Filing by National Securities Clearing Corporation

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

<b>Initial *</b> <input checked="" type="checkbox"/>	<b>Amendment *</b> <input type="checkbox"/>	<b>Withdrawal</b> <input type="checkbox"/>	<b>Section 19(b)(2) *</b> <input type="checkbox"/>	<b>Section 19(b)(3)(A) *</b> <input type="checkbox"/>	<b>Section 19(b)(3)(B) *</b> <input type="checkbox"/>
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<b>Pilot</b> <input type="checkbox"/>	<b>Extension of Time Period for Commission Action *</b> <input type="checkbox"/>	<b>Date Expires *</b> <input type="text"/>	<b>Rule</b>		
			<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)	
			<input type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)	
			<input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(6)	

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010  
Section 806(e)(1) \*

Section 806(e)(2) \*

Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934  
Section 3C(b)(2) \*

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 \* [Redacted] Last Name \* [Redacted]

Title \* [Redacted]

E-mail \* RuleFilingAdmin@dtcc.com

Telephone \* [Redacted] Fax [Redacted]

**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 12/02/2022

(Title \*)

By [Redacted]

[Redacted]

(Name \*)

NOTE: Clicking the signature block at right will initiate digitally signing the form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

Date: 2022.12.02  
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SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

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

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

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AN Narrative - SR-NSCC-2022-802 (C

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

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

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

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

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AN Exh 1A - SR-NSCC-2022-802 (Ga

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

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

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

Exhibit Sent As Paper Document

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

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AN Exhibit 3a - REDACTED - Blank cc  
AN Exhibit 3b - REDACTED - Blank cc

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

Exhibit Sent As Paper Document

**Exhibit 4 - Marked Copies**

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

**Exhibit 5 - Proposed Rule Text**

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AN Exhibit 5 - Gap Risk Measure Enh

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item 1 and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change

**Partial Amendment**

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

## **1. Text of the Advance Notice**

(a) This advance notice of National Securities Clearing Corporation (“NSCC”) consists of modifications to NSCC’s Rules & Procedures (“Rules”),<sup>1</sup> 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 proposed rule change 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**

Not applicable.

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

Not applicable.

## **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. NSCC will notify the Commission of any written comments received by NSCC.

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<sup>1</sup> Capitalized terms not defined herein are defined in the Rules, [available at https://dtcc.com/~media/Files/Downloads/legal/rules/nsccl\\_rules.pdf](https://dtcc.com/~media/Files/Downloads/legal/rules/nsccl_rules.pdf).

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

Not applicable.

**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**

*Description of Proposed Changes*

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.<sup>2</sup> 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").<sup>3</sup> 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.

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<sup>2</sup> See Rule 4 (Clearing Fund) and Procedure XV (Clearing Fund Formula and Other Matters), supra 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).

<sup>3</sup> 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. See Rule 46 (Restrictions on Access to Services) of the Rules, supra note 1.

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").<sup>4</sup> The volatility component is designed to capture the market price risk<sup>5</sup> 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").<sup>6</sup> 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.<sup>7</sup> 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 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

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<sup>4</sup> Net Unsettled Positions refer to net positions that have not yet passed their settlement date or did not settle on their settlement date. See Procedure XV (Clearing Fund Formula and Other Matters) of the Rules, supra note 1.

<sup>5</sup> 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.

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

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

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).<sup>8</sup> 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 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.<sup>9</sup> 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.<sup>10</sup> Currently, the concentration threshold is set at 5%.<sup>11</sup>

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<sup>8</sup> See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, *supra* note 1. 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").

<sup>9</sup> See *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> 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%).

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”).<sup>12</sup> 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 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

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



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, 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 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.<sup>13</sup> 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 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

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

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.<sup>14</sup> 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 non-diversified 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 1<sup>st</sup> and 99<sup>th</sup> 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.<sup>15</sup> 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

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<sup>14</sup> 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.

<sup>15</sup> Id.

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.<sup>16</sup> 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 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").<sup>17</sup> 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

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<sup>16</sup> Id.

<sup>17</sup> 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.

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.<sup>18</sup> The Rules currently define the concentration threshold as more than 30 percent of the value of the entire portfolio.<sup>19</sup> 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.<sup>20</sup> 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.<sup>21</sup>

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<sup>18</sup> Id.

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

<sup>20</sup> Id.

<sup>21</sup> Rule 56, supra note 1.

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.<sup>22</sup> 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.<sup>23</sup> 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 Framework,<sup>24</sup> 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*

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

<sup>23</sup> 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)III. (Margin Floor) and (b) the resultant value of Section I.(A)(1)(a)(i)II. (Gap Risk Measure).”

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

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 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 no objection to the advance notice and approval of the proposed rule change<sup>25</sup> by the Commission. NSCC would announce the effective date of the proposed changes by Important Notice posted to its website.

***Expected Effect on and Management of Risk***

NSCC believes that the proposed changes to enhance the Gap Risk Measure as described above would enable NSCC to better limit its risk exposures to Members arising out of their Net Unsettled Positions.

As stated above, the Gap Risk Measure is designed to limit NSCC's exposures to the risks presented by a portfolios that are more susceptible to the effects of gap risk events due to the idiosyncratic nature of the Net Unsettled Positions in those portfolios. The proposal to enhance the Gap Risk Measure would improve NSCC's ability to measure and mitigate such risks by allowing it to (1) collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met by making the Gap Risk Measure additive, (2) 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

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<sup>25</sup> NSCC filed this advance notice as a proposed rule change (File No. SR-NSCC-2022-015) with the Securities and Exchange Commission ("Commission") pursuant to Section 19(b)(1) of the Act, 15 U.S.C. 78s(b)(1), and Rule 19b-4 thereunder, 17 CFR 240.19b-4. A copy of the proposed rule change is available at <https://www.dtcc.com/legal/sec-rule-filings.aspx>.

the effects of gap risk events, (3) provide more coverage of the Gap Risk Measure by adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio and (4) better calibrate and set appropriate gap risk haircuts and concentration thresholds. The proposed changes would allow NSCC to improve its ability to collect sufficient financial resources to cover the exposure that it may face increased market impact costs in liquidating portfolios that are more susceptible to the effects of gap risk events.

By providing NSCC with a more effective measurement of its exposures, as described above, the proposed change would also mitigate risk for Members because lowering the risk profile for NSCC would in turn lower the risk exposure that Members may have with respect to NSCC in its role as a central counterparty.

*Consistency with the Clearing Supervision Act*

Although the Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010 (“Clearing Supervision Act”) does not specify a standard of review for an advance notice, its stated purpose is instructive: to mitigate systemic risk in the financial system and promote financial stability by, among other things, promoting uniform risk management standards for systemically important financial market utilities and strengthening the liquidity of systemically important financial market utilities.<sup>26</sup>

NSCC believes that the proposal is consistent with the Clearing Supervision Act, specifically with the risk management objectives and principles of Section 805(b), and with certain of the risk management standards adopted by the Commission pursuant to Section 805(a)(2), for the reasons described below.<sup>27</sup>

*(i) Consistency with Section 805(b) of the Clearing Supervision Act*

For the reasons described below, NSCC believes that the proposed changes in this advance notice are consistent with the objectives and principles of these risk management standards as described in Section 805(b) of the Clearing Supervision Act<sup>28</sup>

As discussed above, 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 and (4)(a) removing the description of the methodology in the Rules for calculating the gap risk haircut, (b) providing

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<sup>26</sup> See 12 U.S.C. 5461(b).

<sup>27</sup> 12 U.S.C. 5464(a)(2) and (b).

<sup>28</sup> 12 U.S.C. 5464(b).

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 volatility charge is one of the components of its Members’ Required Fund 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 consistent with promoting robust risk management because they are designed to enable NSCC to better limit its exposure to Members in the event of a Member default.

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.

Furthermore, NSCC believes that the changes proposed in this advance notice are consistent with promoting safety and soundness, which, in turn, is consistent with reducing systemic risks and supporting the stability of the broader financial system, consistent with Section 805(b) of the Clearing Supervision Act.<sup>29</sup> The proposed changes are designed to better limit NSCC’s exposures to Members in the event of Member default. As discussed above, the proposed enhancements to Gap Risk Measure are designed to allow NSCC to improve its ability to collect sufficient financial resources to cover the exposure that it may face increased market impact costs in liquidating portfolios that are more susceptible to the effects of gap risk events. The proposed enhancements to the Gap Risk Measure would allow NSCC to collect margin at levels that better reflect the risk presented by these portfolios and would help NSCC limit its

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<sup>29</sup> 12 U.S.C. 5464(b).



exposures to Members.

By better limiting NSCC's exposures to Members in the event of a Member default, the proposed changes are consistent with promoting safety and soundness, which, in turn, is consistent with reducing systemic risks and supporting the stability of the broader financial system.

As a result, NSCC believes the proposal would be consistent with the objectives and principles of Section 805(b) of the Clearing Supervision Act, which specify the promotion of robust risk management, promotion of safety and soundness, reduction of systemic risks and support of the stability of the broader financial system.<sup>30</sup>

*(ii) Consistency with Section 805(a)(2) of the Clearing Supervision Act*

Section 805(a)(2) of the Clearing Supervision Act authorizes the Commission to prescribe risk management standards for the payment, clearing and settlement activities of designated clearing entities, like NSCC, and financial institutions engaged in designated activities for which the Commission is the supervisory agency or the appropriate financial regulator.<sup>31</sup> The Commission has accordingly adopted risk management standards under Section 805(a)(2) of the Clearing Supervision Act and Section 17A of the Exchange Act ("Covered Clearing Agency Standards").<sup>32</sup>

The Covered Clearing Agency Standards require registered clearing agencies to establish, implement, maintain, and enforce written policies and procedures that are reasonably designed to meet certain minimum requirements for their operations and risk management practices on an ongoing basis.<sup>33</sup> NSCC believes that the proposed changes are consistent with Rules 17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii), each promulgated under the Act.<sup>34</sup>

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.<sup>35</sup>

As described above, NSCC believes that the proposed changes would enable it to better

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<sup>30</sup> Id.

<sup>31</sup> 12 U.S.C. 5464(a)(2).

<sup>32</sup> 17 CFR 240.17Ad-22(e).

<sup>33</sup> Id.

<sup>34</sup> 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii).

<sup>35</sup> 17 CFR 240.17Ad-22(e)(4)(i).

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 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.<sup>36</sup>

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.<sup>37</sup>

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<sup>36</sup> Id.

<sup>37</sup> 17 CFR 240.17Ad-22(e)(6)(i).

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 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.<sup>38</sup>

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.<sup>39</sup> By making 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)

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<sup>38</sup> Id.

<sup>39</sup> 17 CFR 240.17Ad-22(e)(23)(ii).

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, 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).<sup>40</sup>

## 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.

Exhibit 5 – Proposed changes to the Rules.

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Id.

**EXHIBIT 1A**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-[\_\_\_\_\_]; File No. SR-NSCC-2022-802)

[DATE]

Self-Regulatory Organizations; National Securities Clearing Corporation; Notice of Filing of Advance Notice to Certain Enhancements to the Gap Risk Measure and the VaR Charge

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 (“Clearing Supervision Act”)<sup>1</sup> and Rule 19b-4(n)(1)(i) under the Securities Exchange Act of 1934 (“Act”),<sup>2</sup> notice is hereby given that on December \_\_, 2022, National Securities Clearing Corporation (“NSCC”) filed with the Securities and Exchange Commission (“Commission”) the advance notice as described in Items I, II and III below, which Items have been prepared by the clearing agency.<sup>3</sup> The Commission is publishing this notice to solicit comments on the advance notice from interested persons.

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<sup>1</sup> 12 U.S.C. 5465(e)(1).

<sup>2</sup> 17 CFR 240.19b-4(n)(1)(i).

<sup>3</sup> NSCC filed this advance notice as a proposed rule change (SR-NSCC-2022-015) with the Commission pursuant to Section 19(b)(1) of the Act, 15 U.S.C. 78s(b)(1), and Rule 19b-4 thereunder, 17 CFR 240.19b-4. A copy of the proposed rule change is available at <https://www.dtcc.com/legal/sec-rule-filings.aspx>.

I. Clearing Agency's Statement of the Terms of Substance of the Advance Notice

This advance notice consists of modifications to NSCC's Rules & Procedures ("Rules")<sup>4</sup> 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.

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<sup>4</sup> Capitalized terms not defined herein are defined in the Rules, available at [https://dtcc.com/~media/Files/Downloads/legal/rules/nscc\\_rules.pdf](https://dtcc.com/~media/Files/Downloads/legal/rules/nscc_rules.pdf).

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

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

(A) Clearing Agency's Statement on Comments on the Advance Notice Received from Members, Participants, or Others

NSCC has not received or solicited any written comments relating to this proposal. NSCC will notify the Securities and Exchange Commission ("Commission") of any written comments received by NSCC.

(B) Advance Notice Filed Pursuant to Section 806(e) of the Clearing Supervision Act

Description of Proposed Changes

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.<sup>5</sup> 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").<sup>6</sup> 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

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<sup>5</sup> See Rule 4 (Clearing Fund) and Procedure XV (Clearing Fund Formula and Other Matters), supra 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).

<sup>6</sup> 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. See Rule 46 (Restrictions on Access to Services) of the Rules, supra note 4.

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").<sup>7</sup> The volatility component is designed to capture the market price risk<sup>8</sup> 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").<sup>9</sup> 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

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

<sup>8</sup> 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.

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

instead subject to a haircut-based calculation.<sup>10</sup> 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 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.

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

**(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).<sup>11</sup> 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

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<sup>11</sup> See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, supra note 4. 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").

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 was initially set at 30 percent of a Member’s entire portfolio value.<sup>12</sup> 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.<sup>13</sup> Currently, the concentration threshold is set at 5%.<sup>14</sup>

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”).<sup>15</sup> 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

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<sup>12</sup> See Id.

<sup>13</sup> Id.

<sup>14</sup> 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%).

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

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 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, 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 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.<sup>16</sup> 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

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<sup>16</sup> See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, supra note 4. See also Initial Filing, supra note 11.



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 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 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.<sup>17</sup> 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

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<sup>17</sup> 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.

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 non-diversified 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 1<sup>st</sup> and 99<sup>th</sup> 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.<sup>18</sup> 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.<sup>19</sup> Given the proposed expansion of the calculation of the Gap Risk Measure to cover the two largest non-diversified Net

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<sup>18</sup> Id.

<sup>19</sup> Id.

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 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").<sup>20</sup> 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

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<sup>20</sup> 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.

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.<sup>21</sup> The Rules currently define the concentration threshold as more than 30 percent of the value of the entire portfolio.<sup>22</sup> 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.<sup>23</sup> 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.<sup>24</sup> 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.<sup>25</sup> Footnote 1 (“Footnote 1”) in Section 12(c) provides that for purposes of applying

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<sup>21</sup> Id.

<sup>22</sup> See Section I(A)(1)(a)(i)II and I(A)(2)(a)(i)II of Procedure XV of the Rules, supra note 4. See also Initial Filing, supra note 11.

<sup>23</sup> Id.

<sup>24</sup> Rule 56, supra note 4.

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

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.<sup>26</sup> 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

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<sup>26</sup> See Footnote 1, *supra* note 4, 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)III. (Margin Floor) and (b) the resultant value of Section I.(A)(1)(a)(i)II. (Gap Risk Measure).”

Framework,<sup>27</sup> 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

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<sup>27</sup> See Model Risk Management Framework, supra note 20.



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 no objection to the advance notice and approval of the proposed rule change<sup>28</sup> by the Commission. NSCC would announce the effective date of the proposed changes by Important Notice posted to its website.

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<sup>28</sup> NSCC filed this advance notice as a proposed rule change (File No. SR-NSCC-2022-015) with the Commission pursuant to Section 19(b)(1) of the Act, 15 U.S.C. 78s(b)(1), and Rule 19b-4 thereunder, 17 CFR 240.19b-4. A copy of the proposed rule change is available at <https://www.dtcc.com/legal/sec-rule-filings.aspx>.

*Expected Effect on and Management of Risk*

NSCC believes that the proposed changes to enhance the Gap Risk Measure as described above would enable NSCC to better limit its risk exposures to Members arising out of their Net Unsettled Positions.

As stated above, the Gap Risk Measure is designed to limit NSCC's exposures to the risks presented by a portfolios that are more susceptible to the effects of gap risk events due to the idiosyncratic nature of the Net Unsettled Positions in those portfolios. The proposal to enhance the Gap Risk Measure would improve NSCC's ability to measure and mitigate such risks by allowing it to (1) collect the amount that results from a calculation of the Gap Risk Measure every time the concentration threshold is met by making the Gap Risk Measure additive, (2) 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, (3) provide more coverage of the Gap Risk Measure by adjusting the Gap Risk Measure trigger and calculation to target the largest two non-diversified Net Unsettled Positions in a portfolio and (4) better calibrate and set appropriate gap risk haircuts and concentration thresholds. The proposed changes would allow NSCC to improve its ability to collect sufficient financial resources to cover the exposure that it may face increased market impact costs in liquidating portfolios that are more susceptible to the effects of gap risk events.

By providing NSCC with a more effective measurement of its exposures, as described above, the proposed change would also mitigate risk for Members because lowering the risk profile for NSCC would in turn lower the risk exposure that Members may have with respect to NSCC in its role as a central counterparty.

*Consistency with the Clearing Supervision Act*

Although the Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010 (“Clearing Supervision Act”) does not specify a standard of review for an advance notice, its stated purpose is instructive: to mitigate systemic risk in the financial system and promote financial stability by, among other things, promoting uniform risk management standards for systemically important financial market utilities and strengthening the liquidity of systemically important financial market utilities.<sup>29</sup>

NSCC believes that the proposal is consistent with the Clearing Supervision Act, specifically with the risk management objectives and principles of Section 805(b), and with certain of the risk management standards adopted by the Commission pursuant to Section 805(a)(2), for the reasons described below.<sup>30</sup>

*(i) Consistency with Section 805(b) of the Clearing Supervision Act*

For the reasons described below, NSCC believes that the proposed changes in this advance notice are consistent with the objectives and principles of these risk management standards as described in Section 805(b) of the Clearing Supervision Act<sup>31</sup>

As discussed above, 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

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<sup>29</sup> See 12 U.S.C. 5461(b).

<sup>30</sup> 12 U.S.C. 5464(a)(2) and (b).

<sup>31</sup> 12 U.S.C. 5464(b).

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 volatility charge is one of the components of its Members’ Required Fund 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 consistent with promoting robust risk management because they are designed to enable NSCC to better limit its exposure to Members in the event of a Member default.

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.

Furthermore, NSCC believes that the changes proposed in this advance notice are consistent with promoting safety and soundness, which, in turn, is consistent with reducing systemic risks and supporting the stability of the broader financial system, consistent with Section 805(b) of the Clearing Supervision Act.<sup>32</sup> The proposed changes are designed to better limit NSCC's exposures to Members in the event of Member default. As discussed above, the proposed enhancements to Gap Risk Measure are

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<sup>32</sup> 12 U.S.C. 5464(b).

designed to allow NSCC to improve its ability to collect sufficient financial resources to cover the exposure that it may face increased market impact costs in liquidating portfolios that are more susceptible to the effects of gap risk events. The proposed enhancements to the Gap Risk Measure would allow NSCC to collect margin at levels that better reflect the risk presented by these portfolios and would help NSCC limit its exposures to Members.

By better limiting NSCC's exposures to Members in the event of a Member default, the proposed changes are consistent with promoting safety and soundness, which, in turn, is consistent with reducing systemic risks and supporting the stability of the broader financial system.

As a result, NSCC believes the proposal would be consistent with the objectives and principles of Section 805(b) of the Clearing Supervision Act, which specify the promotion of robust risk management, promotion of safety and soundness, reduction of systemic risks and support of the stability of the broader financial system.<sup>33</sup>

*(ii) Consistency with Section 805(a)(2) of the Clearing Supervision Act*

Section 805(a)(2) of the Clearing Supervision Act authorizes the Commission to prescribe risk management standards for the payment, clearing and settlement activities of designated clearing entities, like NSCC, and financial institutions engaged in designated activities for which the Commission is the supervisory agency or the appropriate financial regulator.<sup>34</sup> The Commission has accordingly adopted risk

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<sup>33</sup> Id.

<sup>34</sup> 12 U.S.C. 5464(a)(2).

management standards under Section 805(a)(2) of the Clearing Supervision Act and Section 17A of the Exchange Act (“Covered Clearing Agency Standards”).<sup>35</sup>

The Covered Clearing Agency Standards require registered clearing agencies to establish, implement, maintain, and enforce written policies and procedures that are reasonably designed to meet certain minimum requirements for their operations and risk management practices on an ongoing basis.<sup>36</sup> NSCC believes that the proposed changes are consistent with Rules 17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii), each promulgated under the Act.<sup>37</sup>

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.<sup>38</sup>

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.

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<sup>35</sup> 17 CFR 240.17Ad-22(e).

<sup>36</sup> Id.

<sup>37</sup> 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i) and (e)(23)(ii).

<sup>38</sup> 17 CFR 240.17Ad-22(e)(4)(i).

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 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.<sup>39</sup>

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.<sup>40</sup>

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

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<sup>39</sup> Id.

<sup>40</sup> 17 CFR 240.17Ad-22(e)(6)(i).

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 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.<sup>41</sup>

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.<sup>42</sup> By making 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

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<sup>41</sup> Id.

<sup>42</sup> 17 CFR 240.17Ad-22(e)(23)(ii).

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, 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).<sup>43</sup>

III. Date of Effectiveness of the Advance Notice, and Timing for Commission Action

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

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

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<sup>43</sup>

Id.

authorizes the clearing agency to implement the proposed change on an earlier date, subject to any conditions imposed by the Commission.

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

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

#### IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the advance notice is consistent with the Clearing Supervision Act. Comments may be submitted by any of the following methods:

##### Electronic Comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-NSCC-2022-802 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-2022-802. 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 advance notice that are filed with the Commission, and all written communications relating to the advance notice between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 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-rule-filings.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-2022-802 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

By the Commission.

Secretary

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NATIONAL  
SECURITIES  
CLEARING  
CORPORATION

RULES & PROCEDURES

**TEXT OF PROPOSED RULE CHANGE**

text indicates proposed added language.

text indicates proposed deleted language.

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.]**

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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),<sup>4</sup> (b), (c), (e), (f), (g)<sup>2</sup> 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)**

<sup>4</sup> ~~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)III. (Margin Floor) and (b) the resultant value of Section I.(A)(1)(a)(i)II. (Gap Risk Measure).~~

<sup>2</sup> 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.

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### PROCEDURE XV. CLEARING FUND FORMULA AND OTHER MATTERS<sup>3</sup>

**[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

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<sup>3</sup> 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 **the sum of (1) the highest resultant value among the following I and II below, and (2) the resultant value of III below:**

- 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) micro-capitalization 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,<sup>4</sup> and then rounding the result up to the nearest whole percentage.~~

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<sup>4</sup> 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 sum of the absolute gross market values of the two largest non-diversified non-index position Net Unsettled Positions<sup>5</sup> in the portfolio represents a percentage designated by the Corporation from time to time more than 30 percent of the gross market value of the entire portfolio (the "concentration threshold"), an amount determined by adding the sum of:

- 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

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<sup>5</sup> 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,<sup>6</sup> and then rounding the result up to the nearest whole percentage.~~

The concentration threshold ~~shall~~<sup>would</sup> be no more than 30 percent.<sup>2</sup> ~~The concentration threshold~~ and ~~the gap risk haircuts shall~~<sup>would</sup> be determined by the Corporation from time to time and calibrated based on ~~the portfolio's~~ backtesting ~~results and impact analysis~~ during a time period of not less than the previous 12 months. ~~The Corporation would announce updates of the concentration threshold and gap risk haircuts by Important Notice.~~

\* \* \*

(2) For Balance Order Transactions

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

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".

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<sup>3</sup> ~~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,<sup>7</sup> 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.

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<sup>7</sup> ~~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 sum of the absolute gross market values of the two largest non-diversified non-index position Net Balance Order Unsettled Positions<sup>4</sup> in the portfolio represents more than a percentage designated by the Corporation from time to time 30 percent of the value of the gross market value of the entire portfolio (the “concentration threshold”), an amount determined by adding the sum of:

A. multiplying the product of (1) the gross market value of such the largest non-diversified Net Balance Order Unsettled Position position 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,<sup>9</sup> and then rounding the result up to the nearest whole percentage.

The concentration threshold shall would be no more than 30 percent; The concentration threshold and the gap risk haircuts shall would be determined by the Corporation from time to time and calibrated based on the portfolio’s backtesting results and impact analysis during a time period of not less than the previous 12 months. The Corporation would announce updates of the concentration threshold and gap risk haircuts by Important Notice.

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<sup>4</sup> 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.

<sup>9</sup> 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.