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

File No.* SR - 2020 - * 802
Amendment No. (req. for Amendments *)

Filing by National Securities Clearing Corporation

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

Initial * ☑ Amendment * ☐ Withdrawal ☐

Section 19(b)(2) * ☐ Section 19(b)(3)(A) * ☐ Section 19(b)(3)(B) * ☐

Rule

☐ 19b-4(f)(1) ☐ 19b-4(f)(4)
☐ 19b-4(f)(2) ☐ 19b-4(f)(5)
☐ 19b-4(f)(3) ☐ 19b-4(f)(6)

Pilot ☐ Extension of Time Period for Commission Action * ☐ Date Expires *

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 *).

Enhance National Securities Clearing Corporation's Haircut-Based Volatility Charge Applicable to Illiquid Securities and UITs and Make Certain Other Changes to Procedure XV

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 * James Last Name * Nygard
Title * Director and Assistant General Counsel
E-mail * jnygard@dtcc.com
Telephone * (813) 470-1898 Fax

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934,

has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

Date 03/16/2020
By Nikki Poulos
(Name *)

(Title *)
Managing Director and Deputy General Counsel

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

npoulos@dtcc.com

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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 * Add Remove View	The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.
Exhibit 1 - Notice of Proposed Rule Change * Add Remove View	The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO] -xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)
Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies * Add Remove View	The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO] -xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)
Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications Add Remove View Exhibit Sent As Paper Document ☐	Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.
Exhibit 3 - Form, Report, or Questionnaire Add Remove View Exhibit Sent As Paper Document ☑	Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.
Exhibit 4 - Marked Copies Add Remove View	The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.
Exhibit 5 - Proposed Rule Text Add Remove View	The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.
Partial Amendment Add Remove View	If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

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"),[1] annexed hereto as Exhibit 5, in order to enhance the calculation of certain components of the Clearing Fund formula. First, the proposed rule change would clarify and enhance the methodology for identifying securities as illiquid for purposes of determining the applicable calculation of the volatility component of the Clearing Fund formula, and would revise the definition of "Illiquid Security" in the Rules to reflect these changes.[2] Second, the proposed rule change would enhance the calculation of the haircut-based volatility component of the Clearing Fund formula that is applied to positions in (1) Illiquid Securities (which include securities that are priced at less than a penny ("sub-penny securities") and initial public offerings ("IPOs")), and (2) unit investment trusts ("UITs"). Third, the proposed rule change would eliminate the existing Illiquid Charge, as the risk it was designed to address would be addressed by the other enhancements being proposed. Finally, NSCC would make certain changes to Section I.(A) of Procedure XV (Clearing Fund Formula and Other Matters) of the Rules ("Procedure XV")[3] for greater transparency. Each of these proposed changes are 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 on September 12, 2018.

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.

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

2 See Rule 1 (Definitions and Descriptions). Id.

3 See Procedure XV, supra note 1.

NSCC will notify the Securities and Exchange Commission ("Commission") of any written comments received by NSCC.

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 a number of enhancements to its methodology for calculations of certain components of the Clearing Fund. First, NSCC is proposing to (1) clarify and improve the transparency and use of the term "Illiquid Security" for purposes of determining the applicable calculation of the volatility component of the Clearing Fund formula to Net Unsettled Positions in those securities, and (2) enhance the methodology used in this term by including additional criteria.[4] Specifically, certain criteria relating to listing national securities exchanges would continue to be utilized and would be enhanced and described with greater clarity and transparency under the proposed changes. In addition, NSCC would (i) add securities' market

[4] "Net Unsettled Positions" and "Net Balance Order Unsettled Positions" refer to net positions that have not yet passed their settlement date, or did not settle on their settlement date, and are referred to collectively in this filing as Net Unsettled Positions. NSCC does not take into account any offsets, such as inventory held at other clearing agencies, when determining Net Unsettled Positions for the purpose of calculating the volatility component. See Procedure XV, supra note 1.

capitalization and a median illiquidity ratio, as described in greater detail below, as additional measurements of liquidity and (ii) remove the references to OTC Bulletin Board and OTC Link issue. NSCC would revise the definition of "Illiquid Security" in the Rules to reflect these enhancements.

Second, NSCC would enhance the calculation of the haircut-based volatility component of the Clearing Fund methodology for Net Unsettled Positions in securities whose volatility is less amenable to statistical analysis and securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner. Currently, NSCC uses a fixed percentage in the calculation of charges for Net Unsettled Positions in each of these securities.[5] NSCC would modify these calculations by adding two specific categories for Illiquid Securities (as newly defined pursuant to the proposed changes) and UITs. For Illiquid Securities, NSCC would apply a percentage that is based on the applicable security's price level and for both Illiquid Securities and UITs, NSCC would recalculate the applicable percentages applied to such securities at least annually. NSCC would retain the existing general categories for securities whose volatility is less amenable to statistical analysis and securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner for securities that fall within those descriptions but that are not Illiquid Securities or UITs, and would continue to apply a fixed percentage to such securities.

Third, NSCC would eliminate the existing Illiquid Charge. The Illiquid Charge was designed to cover the risk that NSCC may be unable to easily liquidate Net Unsettled Positions in Illiquid Securities in the event of a Member default due to the securities' lack of marketability and other characteristics. This risk would be addressed by the enhanced criteria for identifying Illiquid Securities, and the enhanced calculation of the applicable haircut-based volatility charge proposed by this filing. Therefore, NSCC believes the Illiquid Charge would no longer be needed to address these risks. In connection with this proposed change, NSCC would also remove the definition of "Illiquid Position" from the Rules, as this term is only used in connection with the calculation of the Illiquid Charge.

Finally, NSCC would provide greater detail to describe the treatment of Net Unsettled Positions in corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities in Section I.(A) of Procedure XV for greater transparency.

Each of the proposed changes is described in more detail below.

(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.[6] The Required Fund Deposit serves as

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5 See Section I.(A)(1)(a)(ii) and Section I.(A)(2)(a)(ii) of Procedure XV, supra note 1.

6 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

each Member's margin. The objective of a Member's Required Fund Deposit includes mitigation of potential losses to NSCC associated with liquidation of the Member's portfolio in the event NSCC ceases to act for that Member (hereinafter referred to as a "default").[7] The aggregate of all Members' Required Fund Deposits, together with certain other deposits required under the Rules, constitutes the Clearing Fund of NSCC, which it would access, among other instances, 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.

Pursuant to the Rules, each Member's Required Fund Deposit amount consists of a number of applicable components, each of which is calculated to address specific risks faced by NSCC, as identified within Procedure XV.[8] Generally, the largest component of Members' Required Fund Deposits is the volatility component. The volatility component is designed to calculate the amount of money that could be lost on a portfolio over a given period of time assumed necessary to liquidate the portfolio, within a 99% confidence level.

NSCC has two methodologies for calculating the volatility component. For the majority of Net Unsettled Positions, NSCC calculates the volatility component as the greater of (1) the larger of two separate calculations that utilize a parametric Value at Risk ("VaR") model, (2) a gap risk measure calculation based on the concentration threshold of the largest non-index position in a portfolio, and (3) a portfolio margin floor calculation based on the market values of the long and short positions in the portfolio ("VaR Charge").[9] Pursuant to Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, certain Net Unsettled Positions are excluded from the calculation of the VaR Charge and are instead charged a haircut-based volatility component that is calculated by multiplying the absolute value of the position by a percent determined by NSCC that is (i) not less than 10% for securities whose volatility is less amenable to statistical analysis and (ii) not less than 2% for securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner.[10] Generally, certain equity securities, including Illiquid Securities, fall within the first category as securities whose volatility is less amenable to statistical analysis and fixed-income securities, including UITs, fall within the second category as securities whose volatility is amenable to generally accepted statistical

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with Rules 17Ad-22(e)(4) and (e)(6) under the Securities Exchange Act of 1934 ("Act"), where these risks are referred to as "credit risks." 17 CFR 240.17Ad-22(e)(4) (e)(6).

7 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.

8 See Procedure XV, supra note 1.

9 See Sections I.(A)(1)(a)(i) and I.(A)(2)(a)(i) of Procedure XV, supra note 1.

10 Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, supra note 1.

analysis only in a complex manner.[11] The securities that fall within either one of these categories tend to exhibit unpredictable illiquid characteristics, such as low trading volumes or infrequent trading. Because the VaR Charge is a model-based calculation, which generally relies on predictability, this charge may be less reliable for measuring market risk of securities that exhibit unpredictable illiquid characteristics.[12] Therefore, NSCC believes that the haircut-based volatility charge is a more appropriate measure of volatility for Net Unsettled Positions in these securities.

In addition to charging a haircut-based volatility component rather than a VaR Charge for certain Illiquid Securities, Members' Required Fund Deposits may also include an Illiquid Charge, which is calculated as described in Sections I.(A)(1)(h) and I.(A)(2)(f) of Procedure XV.[13] The Illiquid Charge is a component of the Clearing Fund that may be assessed with respect to "Illiquid Positions," which are Net Unsettled Positions in "Illiquid Securities" that exceed applicable volume thresholds, as described in the definition of Illiquid Position in Rule 1 of the Rules.[14] The Illiquid Charge is designed to mitigate the risk that NSCC may face when liquidating Net Unsettled Positions in these securities following a Member default.

Currently, an Illiquid Security is defined in the Rules as "a security, other than a family-issued security as defined in Procedure XV, that either (i) is not traded on or subject to the rules of a national securities exchange registered under [the Act]; or (ii) is an OTC Bulletin Board[15] or OTC Link issue."[16]

NSCC regularly assesses its market and credit risks, as such risks are related to its margining methodologies, to evaluate whether margin levels are commensurate with the

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11 UITs are redeemable securities, or units, issued by investment companies that offer fixed security portfolios for a defined period of time.

12 More specifically, the model that is used to calculate the VaR Charge relies on assumptions that are based on historic observations of a security's price. Such assumptions are not reliable predictors of price for securities that exhibit illiquid characteristics, which generally have low trading volumes or are infrequently traded.

13 Sections I.(A)(1)(h) and I.(A)(2)(f) of Procedure XV, supra note 1.

14 Rule 1, supra note 1.

15 The OTC Bulletin Board is an interdealer quotation system that is used by subscribing members of the Financial Industry Regulatory Authority ("FINRA") to reflect market making interest in eligible securities (as defined in FINRA's Rules). See http://www.finra.org/industry/otcbb/otc-bulletin-board-otcbb.

16 OTC Link is an electronic inter-dealer quotation system that displays quotes from broker-dealers for many over-the-counter securities. See https://www.otcmarkets.com.

particular risk attributes of each relevant product, portfolio, and market.[17] The proposed changes described below are a result of NSCC's regular review of the effectiveness of its margining methodology.

(ii) Proposed Enhancements to the Definition of Illiquid Security

NSCC is proposing to revise the Rules to (1) enhance certain existing criteria used in the definition of Illiquid Security for purposes of determining the applicable calculation of the volatility component; (2) remove certain criteria that would become unnecessary following the proposed enhancements; (3) enhance the definition by introducing additional criteria; and (4) repurpose the enhanced definition of Illiquid Security to use with respect to the calculation of the volatility component, as described below. NSCC believes that the proposed changes would provide Members with improved clarity and transparency into the methodology used to apply this definition. The proposed change would also provide NSCC with additional measures of a security's liquidity to improve its ability to apply margin that reflects the risk characteristics of that security.

Following the implementation of the proposed enhancements to this definition, as described below, the definition of Illiquid Security in Rule 1 of the Rules would be a security that: (i) is not listed on a specified securities exchange (defined below) as determined on a daily basis; (ii) is listed on a specified securities exchange and, as determined on a monthly basis, (a)(I) its market capitalization is considered a micro-capitalization (as described below) as of the last business day of the prior month or (II) it is an American depositary receipt ("ADR"); and (b) the median of its calculated illiquidity ratio (defined below) of the prior six months exceeds a threshold that would be determined by NSCC on a monthly basis and is based on the 99th percentile of the illiquidity ratio of non-micro-capitalization common stocks[18] over the prior six months; or (iii) is listed on a specified securities exchange, and, as determined on a monthly basis, has fewer than 31 business days of trading history over the past 153 business days on such exchange. As discussed above, because the VaR Charge is a model-based calculation, which generally relies on predictability, the VaR Charge may be less reliable for measuring market risk

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17 See 17 CFR 240.17Ad-22(e)(6)(i), (e)(6)(vi).

18 Securities that are exchange-traded products ("ETPs") or ADRs would not be included when calculating the illiquidity ratio threshold. ETPs are not included when calculating the illiquidity ratio threshold because the underlying common stocks that comprise the indexes of equity ETPs are included in the calculation. ADRs are not included when calculating the illiquidity ratio threshold because the market capitalization of ADRs may be difficult to calculate because each ADR often converts to different number of shares of a local security. In addition, if NSCC is unable to retrieve data to calculate the illiquidity ratio for the median illiquidity ratio for a security on any day, NSCC would use a default value for that day for purposes of the calculation for the security (i.e., the security would essentially be treated as illiquid for that day).

of securities that exhibit unpredictable illiquid characteristics.[19] Each of the types of securities that would be in the definition of Illiquid Security are securities that tend to exhibit unpredictable illiquid characteristics including limited trading volumes or infrequent trading.

For purposes of this definition a "specified securities exchange" would be a national securities exchange that has established listing services and is covered by industry pricing and data vendors.[20] Initially, NSCC would define micro-capitalization as capitalization of less than $300 million. Consistent with generally prevailing views, NSCC believes that given the lack of public information and limited trading volumes, securities with capitalization below this threshold tend to involve higher risks and exhibit illiquid characteristics.[21] NSCC may adjust this definition from time to time as appropriate in order to continue to reflect a threshold that captures securities with capitalization that would indicate that the securities exhibit illiquid characteristics. Changes to the micro-capitalization threshold would be subject to NSCC's model risk management governance procedures set forth in the Clearing Agency Model Risk Management Framework ("Model Risk Management Framework").[22] NSCC would notify Members of changes to the micro-capitalization threshold by important notice. For purposes of the definition of Illiquid Security, the "illiquidity ratio" of a security on any day would be equal to (i) the price return of such security on such day (based on the natural logarithm of the ratio between the closing price of the stock on such day to the closing price of the stock on the prior

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19 See supra note 12.

20 The exchanges that would initially be specified securities exchanges are: New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., The Nasdaq Stock Market and Cboe BZX Exchange, Inc.

21 See, e.g., https://www.sec.gov/reportspubs/investor-publications/investorpubsmicrocapstockhtm.html.

22 See Securities Exchange Act Release No. 81485 (August 25, 2017), 82 FR 41433 (August 31, 2017) (File No. SR-NSCC-2017-008) (describes the adoption of the Model Risk Management Framework of NSCC which sets forth the model risk management practices of NSCC) and Securities Exchange Act Release No. 84458 (October 19, 2018), 83 FR 53925 (October 25, 2018) (File No. SR-NSCC-2018-009) (amends the Model Risk Management Framework). The Model Risk Management Framework describes the model management practices adopted by NSCC, which have been designed to assist NSCC in identifying, measuring, monitoring, and managing the risks associated with the design, development, implementation, use, and validation of "models" which would include the methodology for determining the volatility component of the Clearing Fund. Id.

trading day) divided by (ii) the average daily trading amount[23] of such security over the prior 20 business days.[24]

a. <u>Enhancements to the Existing Criteria in the Definition of Illiquid Security</u>

NSCC is proposing to enhance existing criteria in the definition of Illiquid Security as set forth below.

In the current definition, an Illiquid Security is a security that is "either (i) not traded or subject to the rules of a national securities exchange registered under the Securities Exchange Act of 1934, as amended; or (ii) is an OTC Bulletin Board or OTC Link issue."[25] On a daily basis, NSCC receives from third party vendors data relating to securities processed through NSCC which indicates the exchanges, if any, on which each security is listed. If a security is not listed on of one of the national securities exchanges covered by the third party vendors, then, currently, NSCC would consider that security an Illiquid Security for the purpose of calculating the Illiquid Charge.[26] Based on historic performances, NSCC believes the national securities exchanges that the vendors cover for this purpose are appropriate for determining if a security exhibits characteristics of liquidity because such exchanges have established listing services and are covered by industry pricing and data vendors. NSCC believes that such exchanges tend to list securities that exhibit liquid characteristics such as having more available public information, larger trading volumes and higher capitalization. NSCC continues to believe this analysis is appropriate for identifying securities that exhibit illiquid characteristics, and would retain and enhance this criterion in the definition in the Rules by specifying that it uses the specified securities exchanges that have established listing services and that are covered by industry pricing and data vendors and providing that it would determine on a daily basis whether securities are subject to the rules of a specified securities exchange.

NSCC would use the same process for determining whether a security is an Illiquid Security based on if such security is listed on a national security exchange and would enhance

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23 The daily trading amount equals the daily trading volume multiplied by the end-of-day price.

24 NSCC believes that the 20-business day period is sufficient to reflect recent market activity for the security.

25 <u>See</u> Rule 1, <u>supra</u>, note 1.

26 The exchanges that have established listing services that the vendors cover for this purpose are: New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., The Nasdaq Stock Market and Cboe BZX Exchange, Inc. Members' Clearing Fund Summary reports, available through the DTCC Risk Portal, identify securities within their portfolio by the ticker symbol and whether those securities are considered Illiquid Securities for purposes of the calculation of the Illiquid Charge. This information provides Members with insight into the basis for their margin calculations.

the definition to reflect the process that will be used. NSCC would change "national securities exchange registered under the Securities Exchange Act of 1934, as amended" to "specified securities exchange" in the definition of Illiquid Security and add a defined term for "specified securities exchange", which would be a national securities exchange that has established listing services and is covered by industry pricing and data vendors.

As a further enhancement, NSCC is proposing to replace the phrase "not traded on or subject to the rules of" with "not listed on" to more accurately describe the process that NSCC and its vendors use to determine if a security is on a national securities exchange. In addition, determining whether a security is listed on an exchange is more definitive and more reliably verifiable than determining whether a security is traded on or subject to the rules of a securities exchange. NSCC is also proposing to remove references to the OTC Bulletin Board and OTC Link issues in the definition of Illiquid Security. NSCC believes that the definition as revised pursuant to this rule change would capture securities listed on the OTC Bulletin Board and OTC Link and the reference to such platforms is unnecessary.

NSCC is also proposing to remove the phrase "other than a family issued security as defined in Procedure XV" from the definition of Illiquid Security because family issued security is not defined in Procedure XV and, given the new proposed use of the definition of Illiquid Security together with other proposed changes, it is not necessary to exclude Family-Issued Securities from the definition. The current defined term "Illiquid Security" is only used in the defined term "Illiquid Position" and in sections relating to the Illiquid Charge which would be removed pursuant to the proposed changes as described herein. The phrase "other than a family issued security as defined in Procedure XV" was intended to ensure that long Net Unsettled Positions in Family-Issued Securities are excluded from the Illiquid Charge.[27] Currently, short Net Unsettled Positions in Family-Issued Securities whose volatility is less amenable to statistical analysis are subject to the haircut set forth in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV. In addition, short Net Unsettled Positions in Family-Issued Securities that are Illiquid Positions are currently subject to the Illiquid Charge.[28] Long Net Unsettled Positions in

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27 Long Net Unsettled Positions in Family-Issued Securities are not subject to the Illiquid Charge because the risk that long Net Unsettled Positions in Family-Issued Securities raise, wrong way risk, is separately provided for by a separate charge for such securities. See Section I.(A)(1)(a)(iv) and Section I.(A)(2)(a)(iv), supra note 1. Wrong way risk is a risk that an exposure to a counterparty is highly likely to increase when the creditworthiness of that counterparty deteriorates. See Principles for financial market infrastructures, issued by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, pg. 47 n.65 (April 2012), available at http://www.bis.org/publ/cpss101a.pdf. Short Net Unsettled Positions in Family-Issued Securities do not present the same wrong way risk as long Net Unsettled Positions in Family-Issued Securities. See note 29 below.

28 The defined term "Illiquid Security" currently excludes "a family issued security as defined in Procedure XV", however, family issued security is not defined in Procedure XV. The defined term Illiquid Security was added to the Rules in 2017. See Securities Exchange Act Release No. 80260 (March 16, 2017), 82 FR 14781 (March 22, 2017) (File

Family Issued Securities are not subject to the haircut set forth Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV nor to the Illiquid Charge.

As described below, following the proposed rule change, the defined term Illiquid Security would be repurposed to be used in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV which sections would apply to certain short Net Unsettled Positions in Family-Issued Securities.[29] As is the case currently, only long Net Unsettled Positions in Family-Issued Securities would be excluded from the calculations in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV which would be noted in I.(A)(1)(a)(ii) as proposed below. The proposed rule change would not change the treatment of long Net Unsettled Positions in Family-Issued Securities which would remain subject to the calculations set forth in Sections I.(A)(1)(a)(iv) and I.(A)(2)(a)(iv) of Procedure XV.

NSCC believes that each of these proposed changes would improve the definition for its new proposed purpose and improve Members' transparency into the application of the existing criteria of the Illiquid Security definition.

b. New Criteria in the Definition of Illiquid Security

NSCC is also proposing to include additional criteria in order to identify securities that exhibit illiquid characteristics and may not be captured by the existing definition as described below.

Although the criterion for this definition relating to whether a security is traded on or subject to the rules of a specified securities exchange would be determined on a daily basis, as noted above, under the proposal, NSCC would also apply new criteria, described below, on a monthly basis, to identify those securities that are subject to the rules of a specified securities

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No. SR-NSCC-2017-001). When the defined term was added, the section where family issued securities was defined in Procedure XV was referring to a separate charge that was applied to long Net Unsettled Positions in Family-Issued Securities and the exclusion of "family issued security" from the defined term Illiquid Security was intended to refer to long Net Unsettled Positions in Family-Issued Securities not short Net Unsettled Positions in Family-Issued Securities.

29 NSCC has identified exposure to specific wrong-way risk when it acts as central counterparty to a Member with long positions in Family-Issued Securities. In the event a Member with long positions in Family-Issued Securities defaults, NSCC would close out those positions following a likely drop in the creditworthiness of the issuer, possibly resulting in a loss to NSCC from a resulting drop in price in the securities. As such, NSCC provides a specific charge for such securities. See id. Short positions present a different risk profile than long positions in this close out scenario based on, in part, the difference in the potential responsiveness of price change to quantity that may occur when NSCC is liquidating a long position in an Illiquid Security, compared to when it is liquidating a short position. As a result, the charge for Family-Issued Securities is only applied to long positions in such securities.

exchange but may still exhibit illiquid characteristics and should be identified as Illiquid Securities. The new criteria would be based on (i) the security's market capitalization and (ii) the trading history of the security. In addition, ADRs would also be subject to additional review to determine if they should be deemed to be Illiquid Securities.

First, NSCC is proposing to revise the definition of Illiquid Security to identify securities issued by an entity with a micro-capitalization, which can be a characteristic of illiquidity. For purposes of this criterion, NSCC would calculate the product of the outstanding shares and market price on a daily basis for each issuance. Each month, NSCC would use the average of those calculations over the prior month to determine market capitalization. If the average for a particular security is below a threshold determined by NSCC from time to time, the security would be considered micro-capitalization. Initially, NSCC would define micro-capitalization as capitalization of less than $300 million. Securities with a capitalization below $300 million and which are considered micro-capitalization tend to exhibit illiquid characteristics such as limited public information and lower trading volumes. NSCC may update the micro-capitalization threshold from time to time as announced by an important notice to the Members. Changes to the threshold would be subject to NSCC's model risk governance procedures set forth in the Model Risk Management Framework.[30]

If the average market capitalization of a security is considered micro-capitalization or if the security is an ADR, then the security would be subject to an additional illiquidity ratio test described below to determine if it is an Illiquid Security. NSCC believes it is appropriate to subject a security to the illiquidity ratio test if a security is considered within the range of micro-capitalization because the capitalization of a security could be an indicator of the lack of liquidity of a security. In addition, for ADRs, the market capitalization of the ADR may be difficult to calculate because each ADR often converts to different number of shares of a local security. As a result, NSCC has decided to subject all ADRs to the illiquidity ratio test to determine if it is an Illiquid Security. As noted above,[31] ETPs and ADRs would be excluded from the pool of securities that are used to calculate the illiquidity ratio threshold. However, ETPs that are considered micro-capitalization and ADRs would be subject to the illiquidity ratio test to determine if they are Illiquid Securities.

If a security is considered within the range of micro-capitalization or if the security is an ADR, it would be subject to additional illiquidity ratio test that would include the application of an "illiquidity ratio" to determine if the security should be deemed an Illiquid Security. The illiquidity ratio of a security on any day would be equal to (i) the security's price return on such day (based on the natural logarithm of the ratio between the closing price of the stock on such day to the closing price of the stock on the prior trading day) divided by (ii) the average daily

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[30] See supra note 22.

[31] See supra note 18.

trading amount[32] of such security over the prior 20 business days.[33] The illiquidity ratio for each security that is subject to this illiquidity ratio test would be determined monthly.

A security that is subject to the illiquidity ratio test would only be deemed an Illiquid Security if the calculated median illiquidity ratio of the prior six months exceeds a threshold to be determined by NSCC on a monthly basis based on the 99th percentile of the illiquidity ratio of non-micro-capitalization common stocks over the prior six months.[34] If the calculated median illiquidity ratio of a security did not exceed such threshold it would not be deemed an Illiquid Security and would be subject to the VaR Charge. NSCC believes the illiquidity ratio would provide it with a reliable measurement of a security's liquidity because NSCC would use the absolute value of the daily return-to-volume ratio to capture price impact. Given the same dollar amount of trading activity, higher price impact typically indicates less liquidity.

Second, NSCC would include in the Illiquid Security definition securities that are subject to the rules of a specified securities exchange, but, as determined on a monthly basis, have fewer than 31 business days of trading history over the past 153 business days on such exchange. NSCC has historically used this time period to identify IPOs which tend to exhibit illiquid characteristics due to their limited trading history.[35]

In order to implement these proposed changes, NSCC would include these additional criteria in the revised definition of "Illiquid Security" in Rule 1 of the Rules.

(iii) Proposed Enhancement to the Volatility Component Applicable to Illiquid Securities and UITs

NSCC is also proposing to enhance the calculation of the haircut-based volatility component for Illiquid Securities and UITs. As described above, Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV currently provide that NSCC has the discretion to exclude from the VaR Charge Net Unsettled Positions in classes of securities whose volatility is (1) less amenable to statistical analysis, or (2) amenable to generally accepted statistical analysis only in

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32 Supra note 23.

33 For example, assuming Stock A has a closing price of \$10 on day 1, and a closing price of \$11 on day 2, then the "price return" as of day 2 would be abs(log(11/10)) = 0.09531018. Assuming the average daily trading amount of the stock over the prior 20 business days is \$1,100,000, the daily "illiquidity ratio" for Stock A on day 2 is 0.09531018 divided by 1,100,000 x 10^6 = 0.0866.

34 See supra note 18.

35 NSCC has observed that the use of the metric, 31 business days of trading over the past 153 business days, has been useful in identifying securities, such as IPOs, that exhibit illiquid characteristics based on their limited trading history. As such, NSCC would use this metric in the definition of Illiquid Security to ensure that these securities, including IPOs, are identified as Illiquid Securities.

a complex manner, and permits NSCC to instead calculate the volatility charge for Net Unsettled Positions in these securities as a haircut-based charge.[36]

Pursuant to this authority, NSCC calculates the volatility charge for IPOs by multiplying the absolute value of the Net Unsettled Position by a fixed 15%, and calculates the volatility charge for all other Illiquid Securities (as currently defined) and sub-penny securities by multiplying the absolute value[37] of the Net Unsettled Position by a fixed 20%. Net Unsettled Positions in UITs are subject to the same haircut-based volatility charge as other securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner. Today, NSCC generally does not adjust the applicable haircut-based volatility charge, which is a percent that is no less than 2%, pursuant to Procedure XV.

Based on backtesting results, NSCC has observed that market price movements are correlated to a security's market price. Therefore, NSCC believes it would be able to calculate a haircut-based volatility charge that more appropriately addresses the risks presented by a Net Unsettled Position if NSCC considers a security's price level or risk profile when determining the haircut percentage to be used in that calculation. As described below, NSCC is proposing to enhance the calculation of the haircut-based volatility component for Illiquid Securities and UITs. In order to implement the changes described below, NSCC would revise Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV by including new subsections (A)(I) and (II) and (B)(I) and (II) relating to such securities.

a. Enhancing the Volatility Charge for Illiquid Securities

First, NSCC is proposing to enhance the haircut-based volatility charge for Illiquid Securities. The applicable percent would be determined at least annually[38] as the highest of (1) 10%, (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of each group of Illiquid Securities[39] in each Member's portfolio and (3) a percent benchmarked to be sufficient to cover 99th percentile of the historical 3-day return of each group

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36 See Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, supra note 1.

37 For purposes of the calculating the absolute value, the share price of each sub-penny security is rounded up to one cent. If a transaction in any security with a share price below one cent is entered into NSCC's Continuous Net Settlement system or Balance Order Accounting Operation, NSCC rounds up the price of the security to one cent.

38 A number of important considerations consistent with the model risk management practices adopted by NSCC could prompt more frequent haircut review, such as material deterioration of Members' backtesting performance, market events or structure changes, and model validation findings. See also Model Risk Management Framework supra note 22.

39 NSCC would group Illiquid Securities by price level, and Illiquid Securities that are sub-penny securities would be separately grouped by long or short position, as discussed in more detail below.

in each Member's portfolio after incorporating a fixed transaction cost.[40] The applicable percent, and the determination of how often the applicable percent is determined if more often than annually, would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[41] The look-back period for this calibration would be no less than five years and would initially be five years to be consistent with the historical data set used in model development. The look-back period may be adjusted by NSCC as necessary consistent with the model risk management practices adopted by NSCC to respond to, for example, market events that impact liquidity in the market and Member backtesting deficiencies. Adjustments to the look-back period would be subject to NSCC's model risk governance procedures set forth in the Model Risk Management Framework.[42] Generally, lower priced securities that may present NSCC with a greater risk would be charged a haircut-based volatility charge based on a higher percent.

NSCC would group Illiquid Securities by price level, and Illiquid Securities that are sub-penny securities would be separately grouped by long or short position, where each group is assigned a percent to be used in the calculation of the haircut-based volatility charge. The price level groupings would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[43] The proposal would allow NSCC to calculate this charge based on the market price of Illiquid Securities. With respect to an Illiquid Security that is not a sub-penny security, NSCC would calculate one haircut-based volatility charge for short and long positions. However, with respect to an Illiquid Security that is a sub-penny security, NSCC would calculate the haircut-based volatility charge for short positions and long positions separately. NSCC believes the proposed change is appropriate for Illiquid Securities that are sub-penny securities, particularly as short positions in sub-penny securities could experience price movements of more than 100%. Further, these securities are typically issued by companies with low market capitalization, and may be susceptible to market manipulation, enforcement actions, or private litigation. The proposed change would allow NSCC to calculate a haircut-based volatility charge that accounts for this risk of price movements. Although sub-penny securities would be separately grouped by price level based on the sub-penny values, since the price of sub-penny securities is rounded up to one cent when it is entered into the Continuous Net Settlement System and Balance Order Accounting Operation, the current market price of each sub-penny security would be deemed to be one cent for purposes of applying the haircut-based volatility charge.

By setting a floor of 10%, the proposal would allow NSCC to charge an amount that has been adequate, based on historical observation, to address risks presented by Net Unsettled

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40 The fixed transaction cost would be equal to one-half of the estimated bid-ask spread and would be included in the simulated liquidation gain/loss of the positions in each Member's portfolio.

41 See supra note 22.

42 See supra note 22.

43 See supra note 22.

Positions in these securities and is consistent with the current methodology, which also sets a floor for the haircut-based volatility charge of no less than 10%. In this way, the haircut-based volatility charge would be calculated to allow NSCC to collect margin at levels that reflect the risk presented by these Net Unsettled Positions. Unlike the current methodology which provides NSCC the discretion to apply a haircut, NSCC would not have discretion as to whether to apply the haircut-based volatility charge to Illiquid Securities and all Illiquid Securities would be subject to the charge.

In order to implement this proposed change, NSCC would describe the haircut-based volatility charge applicable to Illiquid Securities in the new Sections I.(A)(1)(a)(ii)(B)(I) and I.(A)(2)(a)(ii)(B)(I) of Procedure XV.

b. Enhancing the Volatility Charge for UITs

NSCC is also proposing to revise the calculation of the haircut-based volatility charge applied to UITs by reviewing the percent used in this calculation at least annually, in order to apply a haircut-based volatility charge to Net Unsettled Positions in UITs that is more closely based on a measurement of the risk presented by Members' portfolio composition and market conditions.

Currently, NSCC applies a haircut-based volatility charge that is a fixed 2% to Net Unsettled Positions in securities whose volatility is amenable to generally accepted statistical analysis (for example, the methodology used to calculate the VaR Charge) only in a complex manner, which include UITs. NSCC is proposing to continue to apply a haircut-based volatility charge to Net Unsettled Positions in UITs that would be no less than 2%, as currently provided for in Procedure XV, but would re-calculate the applicable percent designated by NSCC at least annually. The re-calculation of the applicable percent would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[44] Subject to this existing floor, the applicable percent would be benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of UITs in each Member's portfolio, with a lookback period of no less than five years. Unlike the current methodology which provides NSCC the discretion to apply a haircut, NSCC would not have discretion as to whether to apply the haircut-based volatility charge to UITs and all UITs would be subject to the charge.

In order to implement this proposed change, NSCC would describe the haircut-based volatility charge applicable to UITs in the new Sections I.(A)(1)(a)(ii)(B)(II) and I.(A)(2)(a)(ii)(B)(II) of Procedure XV.

c. Enhancing Existing Language for Volatility Charge

NSCC is also proposing to re-arrange the existing language relating to securities whose volatility is (1) less amenable to statistical analysis, or (2) amenable to generally accepted statistical analysis only in a complex manner, to clarify the language and make it more transparent. NSCC would move the description of securities whose volatility is less amenable to

44 See supra note 22.

statistical analysis to new Sections I.(A)(1)(a)(ii)(A)(I) and I.(A)(2)(a)(ii)(A)(I) of Procedure XV and move the description of securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner to new Sections I.(A)(1)(a)(ii)(A)(II) and I.(A)(2)(a)(ii)(A)(II). NSCC would indicate that securities that are Illiquid Securities or UITs would not be subject to these general categories. NSCC would also remove the phrase "such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars)" which was intended as an example of securities whose volatility is less amenable to statistical analysis because NSCC does not believe that the example adequately describes all of the securities that are less amenable to statistical analysis and may be misleading. In addition, securities in the example would include securities that are Illiquid Securities and that would no longer be subject to this general category. In addition, NSCC is proposing to remove the phrase "other than corporate and municipal bonds," which qualifies securities amenable to generally accepted statistical analysis only in a complex manner, because the treatment of corporate and municipal bonds would be clarified as set forth in subsection (v) below.

NSCC believes that the new defined term Illiquid Security would identify all securities for which a haircut is currently applied because such securities are less amenable to statistical analysis pursuant to Sections I.(A)(1)(a)(ii)(x) and I.(A)(2)(a)(ii)(x) of Procedure XV.[45] The haircut for Illiquid Securities upon implementation of the rule change would be calculated pursuant to the new category for Illiquid Securities under Sections I.(A)(1)(a)(ii)(B)(I) and I.(A)(2)(a)(ii)(B)(I) of Procedure XV rather than Sections I.(A)(1)(a)(ii)(A)(I) and I.(A)(2)(a)(ii)(A)(I) of Procedure XV. NSCC believes that UITs are currently substantially all of the securities for which a haircut is currently applied because such securities are amenable to generally accepted statistical analysis only in a complex manner pursuant to Sections I.(A)(1)(a)(ii)(y) and I.(A)(2)(a)(ii)(y) of Procedure XV.[46] The haircut for UITs upon implementation of the rule change would be calculated pursuant to the new category for UITs under Sections I.(A)(1)(a)(ii)(B)(II) and I.(A)(2)(a)(ii)(B)(II) of Procedure XV rather than Sections I.(A)(1)(a)(ii)(A)(II) and I.(A)(2)(a)(ii)(A)(II) of Procedure XV.

There are some types of securities that are amenable to generally accepted statistical analysis only in a complex manner that would not constitute UITs and for which a haircut would continue to be calculated using the category for securities that are amenable to generally

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45 See Sections I.(A)(1)(a)(ii)(x) and I.(A)(2)(a)(ii)(x) of Procedure XV, supra note 1.

46 See Sections I.(A)(1)(a)(ii)(y) and I.(A)(2)(a)(ii)(y) of Procedure XV, supra note 1. Note that the haircuts for municipal and corporate bonds which are also fixed-income securities that are amenable to generally accepted statistical analysis only in a complex manner are separately calculated pursuant to Sections I.(A)(1)(a)(iii) and I.(A)(2)(a)(iii) of Procedure XV. See Sections I.(A)(1)(a)(iii) and I.(A)(2)(a)(iii) of Procedure XV, supra note 1. Examples of fixed income securities that may remain subject to calculations under Sections I.(A)(1)(a)(ii)(A)(I) and I.(A)(2)(a)(ii)(A)(I) of Procedure XV would include preferred stock or other fixed income securities that are amenable to generally accepted statistical analysis only in a complex manner other than UITs or corporate or municipal bonds.

accepted statistical analysis only in a complex manner upon implementation of the rule change. NSCC believes that there are no current types of securities for which the haircut would be calculated using the general category for securities that are less amenable to statistical analysis upon implementation of the rule change. NSCC, however, may deem it necessary to calculate a haircut for securities that fall within this existing category, if such securities do not fall within the categories for Illiquid Securities, after assessing margin suitability or future asset class reviews. Therefore, NSCC is proposing to keep these two more general categories in the Rules revised as contemplated above. As with these existing general categories currently, NSCC would have the discretion to determine whether a security fits within one of these categories. NSCC would follow its existing risk management practices and procedures when determining whether to apply a security that is not an Illiquid Security or a UIT to one of these categories. Applying a new security to one of these categories would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[47]

(iv) Proposal to Eliminate the Illiquid Charge

NSCC is proposing to eliminate the existing Illiquid Charge in conjunction with the aforementioned enhancements. The Illiquid Charge is currently imposed on Net Unsettled Positions in Illiquid Securities, in addition to other applicable components of the Clearing Fund. Because the current haircut-based volatility charge is a flat charge, calculated as a percentage of the absolute value of these Net Unsettled Positions, it may not currently address the lack of liquidity and marketability that are characteristic of Illiquid Securities. The Illiquid Charge is calculated and applied to address these additional risks. Currently, due to the existing definition of Illiquid Security, the Illiquid Charge has limited applicability, and generally only applies to a small population of securities that exhibit illiquid characteristics (i.e., over-the-counter securities traded off-exchange).[48]

However, NSCC believes the proposed enhancements would address the risks presented by Net Unsettled Positions in Illiquid Securities more adequately. As described above, the enhanced methodology for identifying Illiquid Securities would enable NSCC to identify additional securities that could pose credit exposure to NSCC. Further, NSCC believes that the proposed methodology for calculating the applicable haircut-based volatility charge would be more responsive to the risks presented by Net Unsettled Positions in those securities because it would be based on historical performance and would be recalibrated more frequently. Therefore, NSCC is proposing to eliminate the Illiquid Charge in connection with these proposed rule changes as it would be no longer needed to address the risks presented by Illiquid Securities.

In connection with this change, NSCC would also remove the definition of "Illiquid Position" from Rule 1 of the Rules, as this term is only used in connection with the Illiquid Charge.

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47 See supra note 22.

48 Between November 2017 and November 2018, the Illiquid Charge represented an average of approximately 1.5% of the total Clearing Fund requirement.

In order to implement this proposed change, NSCC would amend Rule 1 of the Rules by removing the definition of "Illiquid Position," and NSCC would amend Procedure XV by removing references to the Illiquid Charge in subsection (g) of Section I.(A)(1) and subsection (e) of Section I.(A)(2) and removing subsection (h) of Section I.(A)(1) and subsection (f) of Section I.(A)(2) where the Illiquid Charge is currently described.

(v) Proposal to Enhance Language in Section I.(A) of Procedure XV

In addition to the enhancements described above, NSCC is proposing to make the following changes to Section I.(A) of Procedure XV: (x) add language in subsections (1)(a)(ii) and (iii), and (2)(a)(ii) and (iii), that indicates that Net Unsettled Positions in corporate and municipal bonds are excluded from calculations in subsections (1)(a)(i) and (ii), and (2)(a)(i) and (ii), respectively; and (y) add language in subsections (1)(a)(ii) and (iv), and 2(a)(ii) and (iv), that indicates that long Net Unsettled Positions in Family-Issued Securities are excluded from calculations in subsections (1)(a)(i) and (ii), and (2)(a)(i) and (ii), respectively. The current language indicates that corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities are excluded from calculations in subsections (1)(a)(i) and (2)(a)(i) but does not explicitly indicate that corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities are excluded from (1)(a)(ii) and (2)(a)(ii). NSCC currently applies a haircut for corporate and municipal bonds pursuant to (1)(a)(iii) and (2)(a)(iii) and long Net Unsettled Positions in Family-Issued Securities pursuant to subsections (1)(a)(iii) and (2)(a)(iii) and does not apply a haircut for those securities pursuant to subsections (1)(a)(ii) or (2)(a)(ii).[49] The proposed changes are intended to improve Members' transparency into the treatment of Net Unsettled Positions in corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities in Section I.(A) of Procedure XV and would not change NSCC's methodology with respect to corporate and municipal bonds or long Net Unsettled Positions in Family-Issued Securities.

Expected Effect on and Management of Risk

NSCC believes that the proposed changes to enhance the margining methodology applied to Illiquid Securities and UITs and to eliminate the Illiquid Charge would enable NSCC to better limit its risk exposures to Members arising out of their Net Unsettled Positions.

First, the proposal to enhance the methodology for identifying Illiquid Securities would improve NSCC's ability to limit its risk exposures posed by Net Unsettled Positions in these securities by allowing it to (1) better identify securities that exhibit illiquid characteristics, and (2) calculate a volatility margin component that is appropriate for those characteristics.

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49 As discussed above, currently, short Net Unsettled Positions in Family-Issued Securities whose volatility is less amenable to statistical analysis are subject to the haircut set forth in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV. In addition, short Net Unsettled Positions in Family-Issued Securities that are Illiquid Positions are currently subject to the Illiquid Charge.

Second, the proposal to enhance the calculation of the volatility component applied to Net Unsettled Positions in Illiquid Securities and in UITs would enable NSCC to limit its credit exposures posed by these securities. The proposal would more appropriately address the risks presented by a Net Unsettled Position in these securities by applying a calculation that considers a security's price level and risk profile when determining the haircut percentage to be used in that calculation. Therefore, by enabling NSCC to calculate and collect margin that more accurately reflects the risk characteristics of Illiquid Securities and UITs in its Members' Net Unsettled Positions, these proposals would enhance NSCC's risk management capabilities.

Finally, NSCC's proposal to eliminate the Illiquid Charge would affect NSCC's management of risk by removing a component from the Clearing Fund calculations that is no longer needed to address the risks posed by Net Unsettled Positions in Illiquid Securities. Such risks would be better addressed by the proposed changes to the methodology for identifying Illiquid Securities and the enhancement to the calculation of the applicable volatility charge. This proposed change would remove a component from its Clearing Fund that would no longer be needed to effectively manage risks.

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.[50]

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.[51]

(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

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50 See 12 U.S.C. 5461(b).

51 12 U.S.C. 5464(a)(2) and (b).

standards as described in Section 805(b) of the Clearing Supervision Act and in the Covered Clearing Agency Standards.

As discussed above, NSCC is proposing to (i) change to the way it identifies illiquid securities and the way it calculates the volatility component of the Clearing Fund as applied to Net Unsettled Positions in illiquid securities and UITs, (ii) enhance the calculation of the haircut-based volatility component of the Clearing Fund Formula that is applied to such illiquid securities and UITs and (iii) eliminate the Illiquid Charge as the risk it was designed to address would be addressed by the other 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.

First, NSCC's proposal to introduce additional criteria for identifying illiquid securities by enhancing the definition of "Illiquid Security" and using the definition for purposes of determining the volatility component of the Clearing Fund formula would better enable NSCC to limit its exposures to Net Unsettled Positions in securities that exhibit illiquid characteristics. Second, the proposal to enhance the calculation of the haircut-based volatility charge as applied to Illiquid Securities and UITs would better enable NSCC to limit its exposures to Members by basing this calculation on the risk characteristics of these securities. Finally, NSCC's proposal to eliminate the Illiquid Charge would enable NSCC to remove a component of the Required Fund Deposit that is no longer needed to address risks that would be more adequately addressed through the proposed enhancements to existing risk management measures, as described above.

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.[52] 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 the definition of Illiquid Security are designed to capture additional securities that exhibit illiquid characteristics, and would allow NSCC to limit its exposure to Members by applying a volatility component that is a more appropriate measure of volatility for Net Unsettled Positions in these securities. The proposed enhancements to the haircut-based volatility charge for Illiquid Securities and UITs would allow NSCC to collect margin at levels that better reflect the risk presented by these Net Unsettled Positions and would help NSCC limit its exposures to Members.

Removing the Illiquid Charge would help ensure the Clearing Fund calculation would not include unnecessary components, particularly as NSCC would be better able to address the risks this charge was designed to address through the other proposed risk management enhancements.

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[52] 12 U.S.C. 5464(b).

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.[53]

(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.[54] 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").[55]

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.[56] NSCC believes that the proposed changes are consistent with Rules 17Ad-22(e)(4)(i) and (e)(6)(i) and (v), each promulgated under the Act.[57]

Rule 17Ad-22(e)(4)(i) under the Act[58] 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.

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,

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53 Id.

54 12 U.S.C. 5464(a)(2).

55 17 CFR 240.17Ad-22(e).

56 Id.

57 17 CFR 240.17Ad-22(e)(4)(i) and (e)(6)(i) and (v).

58 17 CFR 240.17Ad-22(e)(4)(i).

manage its credit exposures to Members by maintaining sufficient resources to cover those credit exposures fully with a high degree of confidence. More specifically, the proposed changes to the methodology for identifying Illiquid Securities would allow NSCC to better identify securities that may present credit exposures, for purposes of applying an appropriate margin charge. The proposed enhancements to the volatility charge applicable to Illiquid Securities and UITs would provide NSCC with a more effective measure of the risks that may be presented to NSCC by positions in the securities. Specifically, the proposal to base the calculation of the haircut-based volatility charge applied to positions in Illiquid Securities and UITs on those securities' price level and risk profile would enable NSCC to manage its credit exposures by allowing NSCC to collect and maintain sufficient resources to cover those credit exposures fully with a high degree of confidence. As an example, a recent impact study indicated that under the current methodology short positions in sub-penny securities and securities priced between one cent and one dollar exhibited the lowest average backtesting coverage percentages with 96.2% during the study period, whereas using the proposed methodology average backtesting coverage percentage for such securities would have increased to 99.5% over the study period. NSCC also believes that with the proposed changes NSCC could remove the Illiquid Charge from the Clearing Fund formula because the proposed changes would provide NSCC with a more effective measure of risks related to Net Unsettled Positions in Illiquid Securities. As such, the proposed enhancements to the calculation of the volatility component would permit NSCC to more effectively identify, measure, monitor and manage its exposures to risk, and would enable it to better limit its exposure to potential losses from Member default.

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.[59]

Rule 17Ad-22(e)(6)(i) under the Act[60] 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.

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. NSCC is proposing changes that are designed to more effectively address risk characteristics of Net Unsettled Positions in Illiquid Securities. NSCC believes that these changes would enable NSCC to produce margin levels that are more commensurate with the particular risk attributes of these securities, including the risk of increased transaction and market costs to NSCC to liquidate or

59 Id.

60 17 CFR 240.17Ad-22(e)(6)(i).

hedge due to lack of liquidity or marketability of such positions.

For example, by enhancing the methodology for Illiquid Securities through an additional review of market capitalization of a security and the use of an illiquidity ratio, NSCC believes that the proposed change would allow NSCC to better identify those securities that may exhibit illiquid characteristics. The proposed changes to the haircut-based methodology to base the calculation on the price level and risk profile of the applicable security, rather than a static percent, would, NSCC believes, enable NSCC to more effectively measure the risks that are particular to Illiquid Securities and UITs. Backtesting results indicate that by calculating a haircut-based volatility charge that addresses the risks presented by a security's price level or risk profile, the proposed methodology would result in a volatility charge that more appropriately addresses the risk of these securities.

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 exhibit illiquid risk attributes. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(i) under the Act.[61]

Rule 17Ad-22(e)(6)(v) under the Act[62] 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, uses an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products. NSCC is proposing to eliminate the Illiquid Charge because, NSCC believes, the other proposed changes would provide NSCC with a more effective measure of the risks presented by Illiquid Securities. Eliminating this charge would enable NSCC to remove what would become, with the implementation of the other proposed changes, an unnecessary component from the Clearing Fund calculation, and would help NSCC to rely on a more appropriate method of measuring its exposures to this risk. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(v) under the Act.[63]

Accelerated Commission Action Requested

Pursuant to Section 806(e)(1)(I) of the Clearing Supervision Act,[64] NSCC requests that the Commission notify NSCC that it has no objection to the Advance Notice as soon as practicable. As discussed in this filing, the proposed changes would improve NSCC's ability to manage the risks presented to it by positions in illiquid securities and UITs. More specifically, the proposed changes would (1) allow NSCC to better identify securities that exhibit illiquid characteristics and may present credit exposures for purposes of applying an appropriate margin

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61 Id.

62 17 CFR 240.17Ad-22(e)(6)(v).

63 Id.

64 12 U.S.C. 5465(e)(1)(I).

charge, and (2) enhance the volatility charge applicable to illiquid securities and UITs to provide NSCC with a more effective measure of the risks that may be presented to NSCC by positions in these securities.

NSCC believes that both the current and recent market volatility, as well as rapidly developing world events that could be reasonably expected to cause prolonged and potentially extreme market volatility, could have a sudden negative impact on liquidity in certain market segments.

Therefore, NSCC believes that there is good cause for the Commission to notify NSCC that it has no objection to the Advance Notice as soon as practicable, to allow NSCC to implement these important and time-sensitive risk management enhancements and have the ability to more effectively mitigate the risks presented by positions in illiquid securities and UITs.

11. Exhibits

Exhibit 1 – Not applicable.

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

Exhibit 2 – Not applicable.

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

Exhibit 4 – Not applicable.

Exhibit 5 – Proposed changes to the Rules.

EXHIBIT 1A

SECURITIES AND EXCHANGE COMMISSION

(Release No. 34-[_________]; File No. SR-NSCC-2020-802)

[DATE]

Self-Regulatory Organizations; National Securities Clearing Corporation; Notice of Filing of Advance Notice to Enhance National Securities Clearing Corporation's Haircut-Based Volatility Charge Applicable to Illiquid Securities and UITs and Make Certain Other Changes to Procedure XV

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") [1] and Rule 19b-4(n)(1)(i) under the Securities Exchange Act of 1934 ("Act"),[2] notice is hereby given that on March __, 2020, National Securities Clearing Corporation ("NSCC") filed with the Securities and Exchange Commission ("Commission") the advance notice SR-NSCC-2020-802 ("Advance Notice") as described in Items I, II and III below, which Items have been prepared by the clearing agency.[3] The Commission is publishing this notice to solicit comments on the Advance Notice from interested persons.

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

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1 12 U.S.C. 5465(e)(1).

2 17 CFR 240.19b-4(n)(1)(i).

3 On March __, 2020, NSCC filed this Advance Notice as a proposed rule change (SR-NSCC-2020-003) 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 http://www.dtcc.com/legal/sec-rule-filings.aspx.

("Rules")[4] in order to enhance the calculation of certain components of the Clearing Fund formula. First, the proposed rule change would clarify and enhance the methodology for identifying securities as illiquid for purposes of determining the applicable calculation of the volatility component of the Clearing Fund formula, and would revise the definition of "Illiquid Security" in the Rules to reflect these changes.[5] Second, the proposed rule change would enhance the calculation of the haircut-based volatility component of the Clearing Fund formula that is applied to positions in (1) Illiquid Securities (which include securities that are priced at less than a penny ("sub-penny securities") and initial public offerings ("IPOs")), and (2) unit investment trusts ("UITs"). Third, the proposed rule change would eliminate the existing Illiquid Charge, as the risk it was designed to address would be addressed by the other enhancements being proposed. Finally, NSCC would make certain changes to Section I.(A) of Procedure XV (Clearing Fund Formula and Other Matters) of the Rules ("Procedure XV")[6] for greater transparency. Each of these proposed changes are described in greater detail below.

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

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

5 See Rule 1 (Definitions and Descriptions). Id.

6 Procedure XV, supra note 4.

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 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 a number of enhancements to its methodology for calculations of certain components of the Clearing Fund. First, NSCC is proposing to (1) clarify and improve the transparency and use of the term "Illiquid Security" for purposes of determining the applicable calculation of the volatility component of the Clearing Fund formula to Net Unsettled Positions in those securities, and (2) enhance the methodology used in this term by including additional criteria.[7] Specifically, certain criteria relating to listing national securities exchanges would continue to be utilized and would be enhanced and described with greater clarity and transparency under the proposed changes. In addition, NSCC would (i) add securities' market capitalization and a median illiquidity ratio, as described in greater detail below, as additional measurements of liquidity and (ii) remove the references to OTC Bulletin Board and OTC Link issue. NSCC would revise

[7] "Net Unsettled Positions" and "Net Balance Order Unsettled Positions" refer to net positions that have not yet passed their settlement date, or did not settle on their settlement date, and are referred to collectively in this filing as Net Unsettled Positions. NSCC does not take into account any offsets, such as inventory held at other clearing agencies, when determining Net Unsettled Positions for the purpose of calculating the volatility component. See Procedure XV, supra note 4.

the definition of "Illiquid Security" in the Rules to reflect these enhancements.

Second, NSCC would enhance the calculation of the haircut-based volatility component of the Clearing Fund methodology for Net Unsettled Positions in securities whose volatility is less amenable to statistical analysis and securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner. Currently, NSCC uses a fixed percentage in the calculation of charges for Net Unsettled Positions in each of these securities.[8] NSCC would modify these calculations by adding two specific categories for Illiquid Securities (as newly defined pursuant to the proposed changes) and UITs. For Illiquid Securities, NSCC would apply a percentage that is based on the applicable security's price level and for both Illiquid Securities and UITs, NSCC would recalculate the applicable percentages applied to such securities at least annually. NSCC would retain the existing general categories for securities whose volatility is less amenable to statistical analysis and securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner for securities that fall within those descriptions but that are not Illiquid Securities or UITs, and would continue to apply a fixed percentage to such securities.

Third, NSCC would eliminate the existing Illiquid Charge. The Illiquid Charge was designed to cover the risk that NSCC may be unable to easily liquidate Net Unsettled Positions in Illiquid Securities in the event of a Member default due to the securities' lack of marketability and other characteristics. This risk would be addressed by the enhanced criteria for identifying Illiquid Securities, and the enhanced calculation of the applicable

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[8] See Section I.(A)(1)(a)(ii) and Section I.(A)(2)(a)(ii) of Procedure XV, supra note 4.

haircut-based volatility charge proposed by this filing. Therefore, NSCC believes the Illiquid Charge would no longer be needed to address these risks. In connection with this proposed change, NSCC would also remove the definition of "Illiquid Position" from the Rules, as this term is only used in connection with the calculation of the Illiquid Charge.

Finally, NSCC would provide greater detail to describe the treatment of Net Unsettled Positions in corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities in Section I.(A) of Procedure XV for greater transparency.

Each of the proposed changes is described in more detail below.

(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.[9] The Required Fund Deposit serves as each Member's margin. The objective of a Member's Required Fund Deposit includes mitigation of potential losses to NSCC associated with liquidation of the Member's portfolio in the event NSCC ceases to act for that Member (hereinafter referred to as a "default").[10] The aggregate of all Members' Required Fund

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9 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 Rules 17Ad-22(e)(4) and (e)(6) under the Securities Exchange Act of 1934, where these risks are referred to as "credit risks." 17 CFR 240.17Ad-22(e)(4) (e)(6).

10 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.

Deposits, together with certain other deposits required under the Rules, constitutes the Clearing Fund of NSCC, which it would access, among other instances, 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.

Pursuant to the Rules, each Member's Required Fund Deposit amount consists of a number of applicable components, each of which is calculated to address specific risks faced by NSCC, as identified within Procedure XV.[11] Generally, the largest component of Members' Required Fund Deposits is the volatility component. The volatility component is designed to calculate the amount of money that could be lost on a portfolio over a given period of time assumed necessary to liquidate the portfolio, within a 99% confidence level.

NSCC has two methodologies for calculating the volatility component. For the majority of Net Unsettled Positions, NSCC calculates the volatility component as the greater of (1) the larger of two separate calculations that utilize a parametric Value at Risk ("VaR") model, (2) a gap risk measure calculation based on the concentration threshold of the largest non-index position in a portfolio, and (3) a portfolio margin floor calculation based on the market values of the long and short positions in the portfolio ("VaR Charge").[12] Pursuant to Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, certain Net Unsettled Positions are excluded from the calculation of the VaR Charge and are instead charged a haircut-based volatility component that is calculated by multiplying the absolute value of the position by a percent determined by NSCC that is

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11 See Procedure XV, supra note 4.

12 See Sections I.(A)(1)(a)(i) and I.(A)(2)(a)(i) of Procedure XV, supra note 4.

(i) not less than 10% for securities whose volatility is less amenable to statistical analysis and (ii) not less than 2% for securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner.[13] Generally, certain equity securities, including Illiquid Securities, fall within the first category as securities whose volatility is less amenable to statistical analysis and fixed-income securities, including UITs, fall within the second category as securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner.[14] The securities that fall within either one of these categories tend to exhibit unpredictable illiquid characteristics, such as low trading volumes or infrequent trading. Because the VaR Charge is a model-based calculation, which generally relies on predictability, this charge may be less reliable for measuring market risk of securities that exhibit unpredictable illiquid characteristics.[15] Therefore, NSCC believes that the haircut-based volatility charge is a more appropriate measure of volatility for Net Unsettled Positions in these securities.

In addition to charging a haircut-based volatility component rather than a VaR Charge for certain Illiquid Securities, Members' Required Fund Deposits may also include an Illiquid Charge, which is calculated as described in Sections I.(A)(1)(h) and

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13 Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, supra note 4.

14 UITs are redeemable securities, or units, issued by investment companies that offer fixed security portfolios for a defined period of time.

15 More specifically, the model that is used to calculate the VaR Charge relies on assumptions that are based on historic observations of a security's price. Such assumptions are not reliable predictors of price for securities that exhibit illiquid characteristics, which generally have low trading volumes or are infrequently traded.

I.(A)(2)(f) of Procedure XV.[16] The Illiquid Charge is a component of the Clearing Fund that may be assessed with respect to "Illiquid Positions," which are Net Unsettled Positions in "Illiquid Securities" that exceed applicable volume thresholds, as described in the definition of Illiquid Position in Rule 1 of the Rules.[17] The Illiquid Charge is designed to mitigate the risk that NSCC may face when liquidating Net Unsettled Positions in these securities following a Member default.

Currently, an Illiquid Security is defined in the Rules as "a security, other than a family-issued security as defined in Procedure XV, that either (i) is not traded on or subject to the rules of a national securities exchange registered under [the Act]; or (ii) is an OTC Bulletin Board[18] or OTC Link issue."[19]

NSCC regularly assesses its market and credit risks, as such risks are related to its margining methodologies, to evaluate whether margin levels are commensurate with the particular risk attributes of each relevant product, portfolio, and market.[20] The proposed changes described below are a result of NSCC's regular review of the effectiveness of its margining methodology.

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16 Sections I.(A)(1)(h) and I.(A)(2)(f) of Procedure XV, supra note 4.

17 Rule 1, supra note 4.

18 The OTC Bulletin Board is an interdealer quotation system that is used by subscribing members of the Financial Industry Regulatory Authority ("FINRA") to reflect market making interest in eligible securities (as defined in FINRA's Rules). See http://www.finra.org/industry/otcbb/otc-bulletin-board-otcbb.

19 OTC Link is an electronic inter-dealer quotation system that displays quotes from broker-dealers for many over-the-counter securities. See https://www.otcmarkets.com.

20 See 17 CFR 240.17Ad-22(e)(6)(i), (e)(6)(vi).

(ii) Proposed Enhancements to the Definition of Illiquid Security

NSCC is proposing to revise the Rules to (1) enhance certain existing criteria used in the definition of Illiquid Security for purposes of determining the applicable calculation of the volatility component; (2) remove certain criteria that would become unnecessary following the proposed enhancements; (3) enhance the definition by introducing additional criteria; and (4) repurpose the enhanced definition of Illiquid Security to use with respect to the calculation of the volatility component, as described below. NSCC believes that the proposed changes would provide Members with improved clarity and transparency into the methodology used to apply this definition. The proposed change would also provide NSCC with additional measures of a security's liquidity to improve its ability to apply margin that reflects the risk characteristics of that security.

Following the implementation of the proposed enhancements to this definition, as described below, the definition of Illiquid Security in Rule 1 of the Rules would be a security that: (i) is not listed on a specified securities exchange (defined below) as determined on a daily basis; (ii) is listed on a specified securities exchange and, as determined on a monthly basis, (a)(I) its market capitalization is considered a micro-capitalization (as described below) as of the last business day of the prior month or (II) it is an American depositary receipt ("ADR"); and (b) the median of its calculated illiquidity ratio (defined below) of the prior six months exceeds a threshold that would be determined by NSCC on a monthly basis and is based on the 99th percentile of the illiquidity ratio of non-micro-capitalization common stocks[21] over the prior six months; or (iii) is listed on a specified securities exchange, and, as determined on a monthly basis, has fewer than 31 business days of trading history over the past 153 business days on such exchange. As discussed above, because the VaR Charge is a model-based calculation, which generally relies on predictability, the VaR Charge may be less reliable for measuring market risk of securities that exhibit unpredictable illiquid characteristics.[22] Each of the types of securities that would be in the definition of Illiquid Security are securities that tend to exhibit unpredictable illiquid characteristics including limited trading volumes or infrequent trading.

For purposes of this definition a “specified securities exchange” would be a national securities exchange that has established listing services and is covered by industry pricing and data vendors.[23] Initially, NSCC would define micro-capitalization as capitalization of less than $300 million. Consistent with generally prevailing views, NSCC believes that given the lack of public information and limited trading volumes,

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21 Securities that are exchange-traded products (“ETPs”) or ADRs would not be included when calculating the illiquidity ratio threshold. ETPs are not included when calculating the illiquidity ratio threshold because the underlying common stocks that comprise the indexes of equity ETPs are included in the calculation. ADRs are not included when calculating the illiquidity ratio threshold because the market capitalization of ADRs may be difficult to calculate because each ADR often converts to different number of shares of a local security. In addition, if NSCC is unable to retrieve data to calculate the illiquidity ratio for the median illiquidity ratio for a security on any day, NSCC would use a default value for that day for purposes of the calculation for the security (i.e., the security would essentially be treated as illiquid for that day).

22 See supra note 15.

23 The exchanges that would initially be specified securities exchanges are: New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., The Nasdaq Stock Market and Cboe BZX Exchange, Inc.

securities with capitalization below this threshold tend to involve higher risks and exhibit illiquid characteristics.[24] NSCC may adjust this definition from time to time as appropriate in order to continue to reflect a threshold that captures securities with capitalization that would indicate that the securities exhibit illiquid characteristics. Changes to the micro-capitalization threshold would be subject to NSCC's model risk management governance procedures set forth in the Clearing Agency Model Risk Management Framework ("Model Risk Management Framework").[25] NSCC would notify Members of changes to the micro-capitalization threshold by important notice. For purposes of the definition of Illiquid Security, the "illiquidity ratio" of a security on any day would be equal to (i) the price return of such security on such day (based on the natural logarithm of the ratio between the closing price of the stock on such day to the closing price of the stock on the prior trading day) divided by (ii) the average daily

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24 See, e.g., https://www.sec.gov/reportspubs/investor-publications/investorpubsmicrocapstockhtm.html.

25 See Securities Exchange Act Release No. 81485 (August 25, 2017), 82 FR 41433 (August 31, 2017) (File No. SR-NSCC-2017-008) (describes the adoption of the Model Risk Management Framework of NSCC which sets forth the model risk management practices of NSCC) and Securities Exchange Act Release No. 84458 (October 19, 2018), 83 FR 53925 (October 25, 2018) (File No. SR-NSCC-2018-009) (amends the Model Risk Management Framework). The Model Risk Management Framework describes the model management practices adopted by NSCC, which have been designed to assist NSCC in identifying, measuring, monitoring, and managing the risks associated with the design, development, implementation, use, and validation of "models" which would include the methodology for determining the volatility component of the Clearing Fund. Id.

trading amount[26] of such security over the prior 20 business days.[27]

a. Enhancements to the Existing Criteria in the Definition of Illiquid Security

NSCC is proposing to enhance existing criteria in the definition of Illiquid Security as set forth below.

In the current definition, an Illiquid Security is a security that is "either (i) not traded or subject to the rules of a national securities exchange registered under the Securities Exchange Act of 1934, as amended; or (ii) is an OTC Bulletin Board or OTC Link issue."[28] On a daily basis, NSCC receives from third party vendors data relating to securities processed through NSCC which indicates the exchanges, if any, on which each security is listed. If a security is not listed on of one of the national securities exchanges covered by the third party vendors, then, currently, NSCC would consider that security an Illiquid Security for the purpose of calculating the Illiquid Charge.[29] Based on historic performances, NSCC believes the national securities exchanges that the vendors cover for this purpose are appropriate for determining if a security exhibits characteristics of

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26 The daily trading amount equals the daily trading volume multiplied by the end-of-day price.

27 NSCC believes that the 20-business day period is sufficient to reflect recent market activity for the security.

28 See Rule 1, supra, note 4.

29 The exchanges that have established listing services that the vendors cover for this purpose are: New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., The Nasdaq Stock Market and Cboe BZX Exchange, Inc. Members' Clearing Fund Summary reports, available through the DTCC Risk Portal, identify securities within their portfolio by the ticker symbol and whether those securities are considered Illiquid Securities for purposes of the calculation of the Illiquid Charge. This information provides Members with insight into the basis for their margin calculations.

liquidity because such exchanges have established listing services and are covered by industry pricing and data vendors. NSCC believes that such exchanges tend to list securities that exhibit liquid characteristics such as having more available public information, larger trading volumes and higher capitalization. NSCC continues to believe this analysis is appropriate for identifying securities that exhibit illiquid characteristics, and would retain and enhance this criterion in the definition in the Rules by specifying that it uses the specified securities exchanges that have established listing services and that are covered by industry pricing and data vendors and providing that it would determine on a daily basis whether securities are subject to the rules of a specified securities exchange.

NSCC would use the same process for determining whether a security is an Illiquid Security based on if such security is listed on a national security exchange and would enhance the definition to reflect the process that will be used. NSCC would change “national securities exchange registered under the Securities Exchange Act of 1934, as amended” to “specified securities exchange” in the definition of Illiquid Security and add a defined term for “specified securities exchange”, which would be a national securities exchange that has established listing services and is covered by industry pricing and data vendors.

As a further enhancement, NSCC is proposing to replace the phrase “not traded on or subject to the rules of” with “not listed on” to more accurately describe the process that NSCC and its vendors use to determine if a security is on a national securities exchange. In addition, determining whether a security is listed on an exchange is more definitive and more reliably verifiable than determining whether a security is traded on or subject to the rules of a securities exchange. NSCC is also proposing to remove references to the OTC Bulletin Board and OTC Link issues in the definition of Illiquid Security. NSCC believes that the definition as revised pursuant to this rule change would capture securities listed on the OTC Bulletin Board and OTC Link and the reference to such platforms is unnecessary.

NSCC is also proposing to remove the phrase “other than a family issued security as defined in Procedure XV” from the definition of Illiquid Security because family issued security is not defined in Procedure XV and, given the new proposed use of the definition of Illiquid Security together with other proposed changes, it is not necessary to exclude Family-Issued Securities from the definition. The current defined term “Illiquid Security” is only used in the defined term “Illiquid Position” and in sections relating to the Illiquid Charge which would be removed pursuant to the proposed changes as described herein. The phrase “other than a family issued security as defined in Procedure XV” was intended to ensure that long Net Unsettled Positions in Family-Issued Securities are excluded from the Illiquid Charge.[30] Currently, short Net Unsettled Positions in Family-Issued Securities whose volatility is less amenable to statistical analysis are

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30 Long Net Unsettled Positions in Family-Issued Securities are not subject to the Illiquid Charge because the risk that long Net Unsettled Positions in Family-Issued Securities raise, wrong way risk, is separately provided for by a separate charge for such securities. See Section I.(A)(1)(a)(iv) and Section I.(A)(2)(a)(iv), supra note 4. Wrong way risk is a risk that an exposure to a counterparty is highly likely to increase when the creditworthiness of that counterparty deteriorates. See Principles for financial market infrastructures, issued by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, pg. 47 n.65 (April 2012), available at http://www.bis.org/publ/cpss101a.pdf. Short Net Unsettled Positions in Family-Issued Securities do not present the same wrong way risk as long Net Unsettled Positions in Family-Issued Securities. See note 29 below.

subject to the haircut set forth in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV. In addition, short Net Unsettled Positions in Family-Issued Securities that are Illiquid Positions are currently subject to the Illiquid Charge.[31] Long Net Unsettled Positions in Family Issued Securities are not subject to the haircut set forth Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV nor to the Illiquid Charge.

As described below, following the proposed rule change, the defined term Illiquid Security would be repurposed to be used in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV which sections would apply to certain short Net Unsettled Positions in Family-Issued Securities.[32] As is the case currently, only long Net Unsettled Positions in Family-Issued Securities would be excluded from the calculations in Sections

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31 The defined term "Illiquid Security" currently excludes "a family issued security as defined in Procedure XV", however, family issued security is not defined in Procedure XV. The defined term Illiquid Security was added to the Rules in 2017. See Securities Exchange Act Release No. 80260 (March 16, 2017), 82 FR 14781 (March 22, 2017) (File No. SR-NSCC-2017-001). When the defined term was added, the section where family issued securities was defined in Procedure XV was referring to a separate charge that was applied to long Net Unsettled Positions in Family-Issued Securities and the exclusion of "family issued security" from the defined term Illiquid Security was intended to refer to long Net Unsettled Positions in Family-Issued Securities not short Net Unsettled Positions in Family-Issued Securities.

32 NSCC has identified exposure to specific wrong-way risk when it acts as central counterparty to a Member with long positions in Family-Issued Securities. In the event a Member with long positions in Family-Issued Securities defaults, NSCC would close out those positions following a likely drop in the creditworthiness of the issuer, possibly resulting in a loss to NSCC from a resulting drop in price in the securities. As such, NSCC provides a specific charge for such securities. See id. Short positions present a different risk profile than long positions in this close out scenario based on, in part, the difference in the potential responsiveness of price change to quantity that may occur when NSCC is liquidating a long position in an Illiquid Security, compared to when it is liquidating a short position. As a result, the charge for Family-Issued Securities is only applied to long positions in such securities.

I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV which would be noted in I.(A)(1)(a)(ii) as proposed below. The proposed rule change would not change the treatment of long Net Unsettled Positions in Family-Issued Securities which would remain subject to the calculations set forth in Sections I.(A)(1)(a)(iv) and I.(A)(2)(a)(iv) of Procedure XV.

NSCC believes that each of these proposed changes would improve the definition for its new proposed purpose and improve Members' transparency into the application of the existing criteria of the Illiquid Security definition.

b. New Criteria in the Definition of Illiquid Security

NSCC is also proposing to include additional criteria in order to identify securities that exhibit illiquid characteristics and may not be captured by the existing definition as described below.

Although the criterion for this definition relating to whether a security is traded on or subject to the rules of a specified securities exchange would be determined on a daily basis, as noted above, under the proposal, NSCC would also apply new criteria, described below, on a monthly basis, to identify those securities that are subject to the rules of a specified securities exchange but may still exhibit illiquid characteristics and should be identified as Illiquid Securities. The new criteria would be based on (i) the security's market capitalization and (ii) the trading history of the security. In addition, ADRs would also be subject to additional review to determine if they should be deemed to be Illiquid Securities.

First, NSCC is proposing to revise the definition of Illiquid Security to identify securities issued by an entity with a micro-capitalization, which can be a characteristic of illiquidity. For purposes of this criterion, NSCC would calculate the product of the outstanding shares and market price on a daily basis for each issuance. Each month, NSCC would use the average of those calculations over the prior month to determine market capitalization. If the average for a particular security is below a threshold determined by NSCC from time to time, the security would be considered micro-capitalization. Initially, NSCC would define micro-capitalization as capitalization of less than $300 million. Securities with a capitalization below $300 million and which are considered micro-capitalization tend to exhibit illiquid characteristics such as limited public information and lower trading volumes. NSCC may update the micro-capitalization threshold from time to time as announced by an important notice to the Members. Changes to the threshold would be subject to NSCC's model risk governance procedures set forth in the Model Risk Management Framework.[33]

If the average market capitalization of a security is considered micro-capitalization or if the security is an ADR, then the security would be subject to an additional illiquidity ratio test described below to determine if it is an Illiquid Security. NSCC believes it is appropriate to subject a security to the illiquidity ratio test if a security is considered within the range of micro-capitalization because the capitalization of a security could be an indicator of the lack of liquidity of a security. In addition, for ADRs, the market capitalization of the ADR may be difficult to calculate because each ADR often converts to different number of shares of a local security. As a result, NSCC has decided to subject all ADRs to the illiquidity ratio test to determine if it is an Illiquid Security. As noted above,[34] ETPs and ADRs would be excluded from the pool of

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[33] See supra note 25.

[34] See supra note 21.

securities that are used to calculate the illiquidity ratio threshold. However, ETPs that are considered micro-capitalization and ADRs would be subject to the illiquidity ratio test to determine if they are Illiquid Securities.

If a security is considered within the range of micro-capitalization or if the security is an ADR, it would be subject to additional illiquidity ratio test that would include the application of an "illiquidity ratio" to determine if the security should be deemed an Illiquid Security. The illiquidity ratio of a security on any day would be equal to (i) the security's price return on such day (based on the natural logarithm of the ratio between the closing price of the stock on such day to the closing price of the stock on the prior trading day) divided by (ii) the average daily trading amount[35] of such security over the prior 20 business days.[36] The illiquidity ratio for each security that is subject to this illiquidity ratio test would be determined monthly.

A security that is subject to the illiquidity ratio test would only be deemed an Illiquid Security if the calculated median illiquidity ratio of the prior six months exceeds a threshold to be determined by NSCC on a monthly basis based on the 99th percentile of the illiquidity ratio of non-micro-capitalization common stocks over the prior six months.[37] If the calculated median illiquidity ratio of a security did not exceed such threshold it would not be deemed an Illiquid Security and would be subject to the VaR

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35 Supra note 26.

36 For example, assuming Stock A has a closing price of \$10 on day 1, and a closing price of \$11 on day 2, then the "price return" as of day 2 would be abs(log(11/10)) = 0.09531018. Assuming the average daily trading amount of the stock over the prior 20 business days is \$1,100,000, the daily "illiquidity ratio" for Stock A on day 2 is 0.09531018 divided by 1,100,000 x 10^6 = 0.0866.

37 See supra note 21.

Charge. NSCC believes the illiquidity ratio would provide it with a reliable measurement of a security's liquidity because NSCC would use the absolute value of the daily return-to-volume ratio to capture price impact. Given the same dollar amount of trading activity, higher price impact typically indicates less liquidity.

Second, NSCC would include in the Illiquid Security definition securities that are subject to the rules of a specified securities exchange, but, as determined on a monthly basis, have fewer than 31 business days of trading history over the past 153 business days on such exchange. NSCC has historically used this time period to identify IPOs which tend to exhibit illiquid characteristics due to their limited trading history.[38]

In order to implement these proposed changes, NSCC would include these additional criteria in the revised definition of "Illiquid Security" in Rule 1 of the Rules.

(iii) Proposed Enhancement to the Volatility Component Applicable to Illiquid Securities and UITs

NSCC is also proposing to enhance the calculation of the haircut-based volatility component for Illiquid Securities and UITs. As described above, Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV currently provide that NSCC has the discretion to exclude from the VaR Charge Net Unsettled Positions in classes of securities whose volatility is (1) less amenable to statistical analysis, or (2) amenable to generally accepted statistical analysis only in a complex manner, and permits NSCC to instead calculate the

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[38] NSCC has observed that the use of the metric, 31 business days of trading over the past 153 business days, has been useful in identifying securities, such as IPOs, that exhibit illiquid characteristics based on their limited trading history. As such, NSCC would use this metric in the definition of Illiquid Security to ensure that these securities, including IPOs, are identified as Illiquid Securities.

volatility charge for Net Unsettled Positions in these securities as a haircut-based charge.[39]

Pursuant to this authority, NSCC calculates the volatility charge for IPOs by multiplying the absolute value of the Net Unsettled Position by a fixed 15%, and calculates the volatility charge for all other Illiquid Securities (as currently defined) and sub-penny securities by multiplying the absolute value[40] of the Net Unsettled Position by a fixed 20%. Net Unsettled Positions in UITs are subject to the same haircut-based volatility charge as other securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner. Today, NSCC generally does not adjust the applicable haircut-based volatility charge, which is a percent that is no less than 2%, pursuant to Procedure XV.

Based on backtesting results, NSCC has observed that market price movements are correlated to a security's market price. Therefore, NSCC believes it would be able to calculate a haircut-based volatility charge that more appropriately addresses the risks presented by a Net Unsettled Position if NSCC considers a security's price level or risk profile when determining the haircut percentage to be used in that calculation. As described below, NSCC is proposing to enhance the calculation of the haircut-based volatility component for Illiquid Securities and UITs. In order to implement the changes described below, NSCC would revise Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of

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39 See Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, supra note 4.

40 For purposes of the calculating the absolute value, the share price of each sub-penny security is rounded up to one cent._If a transaction in any security with a share price below one cent is entered into NSCC's Continuous Net Settlement system or Balance Order Accounting Operation, NSCC rounds up the price of the security to one cent.

Procedure XV by including new subsections (A)(I) and (II) and (B)(I) and (II) relating to such securities.

a. Enhancing the Volatility Charge for Illiquid Securities

First, NSCC is proposing to enhance the haircut-based volatility charge for Illiquid Securities. The applicable percent would be determined at least annually[41] as the highest of (1) 10%, (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of each group of Illiquid Securities[42] in each Member's portfolio and (3) a percent benchmarked to be sufficient to cover 99th percentile of the historical 3-day return of each group in each Member's portfolio after incorporating a fixed transaction cost.[43] The applicable percent, and the determination of how often the applicable percent is determined if more often than annually, would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[44] The look-back period for this calibration would be no less than five years and would initially be five years to be consistent with the historical data set used in model development. The look-back period may be adjusted by NSCC as necessary consistent

41 A number of important considerations consistent with the model risk management practices adopted by NSCC could prompt more frequent haircut review, such as material deterioration of Members' backtesting performance, market events or structure changes, and model validation findings. See also Model Risk Management Framework supra note 25.

42 NSCC would group Illiquid Securities by price level, and Illiquid Securities that are sub-penny securities would be separately grouped by long or short position, as discussed in more detail below.

43 The fixed transaction cost would be equal to one-half of the estimated bid-ask spread and would be included in the simulated liquidation gain/loss of the positions in each Member's portfolio.

44 See supra note 25.

with the model risk management practices adopted by NSCC to respond to, for example, market events that impact liquidity in the market and Member backtesting deficiencies. Adjustments to the look-back period would be subject to NSCC's model risk governance procedures set forth in the Model Risk Management Framework.[45] Generally, lower priced securities that may present NSCC with a greater risk would be charged a haircut-based volatility charge based on a higher percent.

NSCC would group Illiquid Securities by price level, and Illiquid Securities that are sub-penny securities would be separately grouped by long or short position, where each group is assigned a percent to be used in the calculation of the haircut-based volatility charge. The price level groupings would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[46] The proposal would allow NSCC to calculate this charge based on the market price of Illiquid Securities. With respect to an Illiquid Security that is not a sub-penny security, NSCC would calculate one haircut-based volatility charge for short and long positions. However, with respect to an Illiquid Security that is a sub-penny security, NSCC would calculate the haircut-based volatility charge for short positions and long positions separately. NSCC believes the proposed change is appropriate for Illiquid Securities that are sub-penny securities, particularly as short positions in sub-penny securities could experience price movements of more than 100%. Further, these securities are typically issued by companies with low market capitalization, and may be susceptible to market manipulation, enforcement actions, or private litigation. The

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45 See supra note 25.

46 See supra note 25.

proposed change would allow NSCC to calculate a haircut-based volatility charge that accounts for this risk of price movements. Although sub-penny securities would be separately grouped by price level based on the sub-penny values, since the price of sub-penny securities is rounded up to one cent when it is entered into the Continuous Net Settlement System and Balance Order Accounting Operation, the current market price of each sub-penny security would be deemed to be one cent for purposes of applying the haircut-based volatility charge.

By setting a floor of 10%, the proposal would allow NSCC to charge an amount that has been adequate, based on historical observation, to address risks presented by Net Unsettled Positions in these securities and is consistent with the current methodology, which also sets a floor for the haircut-based volatility charge of no less than 10%. In this way, the haircut-based volatility charge would be calculated to allow NSCC to collect margin at levels that reflect the risk presented by these Net Unsettled Positions. Unlike the current methodology which provides NSCC the discretion to apply a haircut, NSCC would not have discretion as to whether to apply the haircut-based volatility charge to Illiquid Securities and all Illiquid Securities would be subject to the charge.

In order to implement this proposed change, NSCC would describe the haircut-based volatility charge applicable to Illiquid Securities in the new Sections I.(A)(1)(a)(ii)(B)(I) and I.(A)(2)(a)(ii)(B)(I) of Procedure XV.

b. <u>Enhancing the Volatility Charge for UITs</u>

NSCC is also proposing to revise the calculation of the haircut-based volatility charge applied to UITs by reviewing the percent used in this calculation at least annually, in order to apply a haircut-based volatility charge to Net Unsettled Positions in UITs that is more closely based on a measurement of the risk presented by Members' portfolio composition and market conditions.

Currently, NSCC applies a haircut-based volatility charge that is a fixed 2% to Net Unsettled Positions in securities whose volatility is amenable to generally accepted statistical analysis (for example, the methodology used to calculate the VaR Charge) only in a complex manner, which include UITs. NSCC is proposing to continue to apply a haircut-based volatility charge to Net Unsettled Positions in UITs that would be no less than 2%, as currently provided for in Procedure XV, but would re-calculate the applicable percent designated by NSCC at least annually. The re-calculation of the applicable percent would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[47] Subject to this existing floor, the applicable percent would be benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of UITs in each Member's portfolio, with a lookback period of no less than five years. Unlike the current methodology which provides NSCC the discretion to apply a haircut, NSCC would not have discretion as to whether to apply the haircut-based volatility charge to UITs and all UITs would be subject to the charge.

In order to implement this proposed change, NSCC would describe the haircut-based volatility charge applicable to UITs in the new Sections I.(A)(1)(a)(ii)(B)(II) and I.(A)(2)(a)(ii)(B)(II) of Procedure XV.

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47 See supra note 25.

c. Enhancing Existing Language for Volatility Charge

NSCC is also proposing to re-arrange the existing language relating to securities whose volatility is (1) less amenable to statistical analysis, or (2) amenable to generally accepted statistical analysis only in a complex manner, to clarify the language and make it more transparent. NSCC would move the description of securities whose volatility is less amenable to statistical analysis to new Sections I.(A)(1)(a)(ii)(A)(I) and I.(A)(2)(a)(ii)(A)(I) of Procedure XV and move the description of securities whose volatility is amenable to generally accepted statistical analysis only in a complex manner to new Sections I.(A)(1)(a)(ii)(A)(II) and I.(A)(2)(a)(ii)(A)(II). NSCC would indicate that securities that are Illiquid Securities or UITs would not be subject to these general categories. NSCC would also remove the phrase "such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars)" which was intended as an example of securities whose volatility is less amenable to statistical analysis because NSCC does not believe that the example adequately describes all of the securities that are less amenable to statistical analysis and may be misleading. In addition, securities in the example would include securities that are Illiquid Securities and that would no longer be subject to this general category. In addition, NSCC is proposing to remove the phrase "other than corporate and municipal bonds," which qualifies securities amenable to generally accepted statistical analysis only in a complex manner, because the treatment of corporate and municipal bonds would be clarified as set forth in subsection (v) below.

NSCC believes that the new defined term Illiquid Security would identify all securities for which a haircut is currently applied because such securities are less amenable to statistical analysis pursuant to Sections I.(A)(1)(a)(ii)(x) and I.(A)(2)(a)(ii)(x) of Procedure XV.[48] The haircut for Illiquid Securities upon implementation of the rule change would be calculated pursuant to the new category for Illiquid Securities under Sections I.(A)(1)(a)(ii)(B)(I) and I.(A)(2)(a)(ii)(B)(I) of Procedure XV rather than Sections I.(A)(1)(a)(ii)(A)(I) and I.(A)(2)(a)(ii)(A)(I) of Procedure XV. NSCC believes that UITs are currently substantially all of the securities for which a haircut is currently applied because such securities are amenable to generally accepted statistical analysis only in a complex manner pursuant to Sections I.(A)(1)(a)(ii)(y) and I.(A)(2)(a)(ii)(y) of Procedure XV.[49] The haircut for UITs upon implementation of the rule change would be calculated pursuant to the new category for UITs under Sections I.(A)(1)(a)(ii)(B)(II) and I.(A)(2)(a)(ii)(B)(II) of Procedure XV rather than Sections I.(A)(1)(a)(ii)(A)(II) and I.(A)(2)(a)(ii)(A)(II) of Procedure XV.

There are some types of securities that are amenable to generally accepted statistical analysis only in a complex manner that would not constitute UITs and for which a haircut would continue to be calculated using the category for securities that are

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48 See Sections I.(A)(1)(a)(ii)(x) and I.(A)(2)(a)(ii)(x) of Procedure XV, supra note 4.

49 See Sections I.(A)(1)(a)(ii)(y) and I.(A)(2)(a)(ii)(y) of Procedure XV, supra note 4. Note that the haircuts for municipal and corporate bonds which are also fixed-income securities that are amenable to generally accepted statistical analysis only in a complex manner are separately calculated pursuant to Sections I.(A)(1)(a)(iii) and I.(A)(2)(a)(iii) of Procedure XV. See Sections I.(A)(1)(a)(iii) and I.(A)(2)(a)(iii) of Procedure XV, supra note 4. Examples of fixed income securities that may remain subject to calculations under Sections I.(A)(1)(a)(ii)(A)(I) and I.(A)(2)(a)(ii)(A)(I) of Procedure XV would include preferred stock or other fixed income securities that are amenable to generally accepted statistical analysis only in a complex manner other than UITs or corporate or municipal bonds.

amenable to generally accepted statistical analysis only in a complex manner upon implementation of the rule change. NSCC believes that there are no current types of securities for which the haircut would be calculated using the general category for securities that are less amenable to statistical analysis upon implementation of the rule change. NSCC, however, may deem it necessary to calculate a haircut for securities that fall within this existing category, if such securities do not fall within the categories for Illiquid Securities, after assessing margin suitability or future asset class reviews. Therefore, NSCC is proposing to keep these two more general categories in the Rules revised as contemplated above. As with these existing general categories currently, NSCC would have the discretion to determine whether a security fits within one of these categories. NSCC would follow its existing risk management practices and procedures when determining whether to apply a security that is not an Illiquid Security or a UIT to one of these categories. Applying a new security to one of these categories would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.[50]

(iv) Proposal to Eliminate the Illiquid Charge

NSCC is proposing to eliminate the existing Illiquid Charge in conjunction with the aforementioned enhancements. The Illiquid Charge is currently imposed on Net Unsettled Positions in Illiquid Securities, in addition to other applicable components of the Clearing Fund. Because the current haircut-based volatility charge is a flat charge, calculated as a percentage of the absolute value of these Net Unsettled Positions, it may not currently address the lack of liquidity and marketability that are characteristic of

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[50] See supra note 25.

Illiquid Securities. The Illiquid Charge is calculated and applied to address these additional risks. Currently, due to the existing definition of Illiquid Security, the Illiquid Charge has limited applicability, and generally only applies to a small population of securities that exhibit illiquid characteristics (i.e., over-the-counter securities traded off-exchange).[51]

However, NSCC believes the proposed enhancements would address the risks presented by Net Unsettled Positions in Illiquid Securities more adequately. As described above, the enhanced methodology for identifying Illiquid Securities would enable NSCC to identify additional securities that could pose credit exposure to NSCC. Further, NSCC believes that the proposed methodology for calculating the applicable haircut-based volatility charge would be more responsive to the risks presented by Net Unsettled Positions in those securities because it would be based on historical performance and would be recalibrated more frequently. Therefore, NSCC is proposing to eliminate the Illiquid Charge in connection with these proposed rule changes as it would be no longer needed to address the risks presented by Illiquid Securities.

In connection with this change, NSCC would also remove the definition of "Illiquid Position" from Rule 1 of the Rules, as this term is only used in connection with the Illiquid Charge.

In order to implement this proposed change, NSCC would amend Rule 1 of the Rules by removing the definition of "Illiquid Position," and NSCC would amend Procedure XV by removing references to the Illiquid Charge in subsection (g) of Section

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[51] Between November 2017 and November 2018, the Illiquid Charge represented an average of approximately 1.5% of the total Clearing Fund requirement.

I.(A)(1) and subsection (e) of Section I.(A)(2) and removing subsection (h) of Section I.(A)(1) and subsection (f) of Section I.(A)(2) where the Illiquid Charge is currently described.

(v) Proposal to Enhance Language in Section I.(A) of Procedure XV

In addition to the enhancements described above, NSCC is proposing to make the following changes to Section I.(A) of Procedure XV: (x) add language in subsections (1)(a)(ii) and (iii), and (2)(a)(ii) and (iii), that indicates that Net Unsettled Positions in corporate and municipal bonds are excluded from calculations in subsections (1)(a)(i) and (ii), and (2)(a)(i) and (ii), respectively; and (y) add language in subsections (1)(a)(ii) and (iv), and 2(a)(ii) and (iv), that indicates that long Net Unsettled Positions in Family-Issued Securities are excluded from calculations in subsections (1)(a)(i) and (ii), and (2)(a)(i) and (ii), respectively. The current language indicates that corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities are excluded from calculations in subsections (1)(a)(i) and (2)(a)(i) but does not explicitly indicate that corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities are excluded from (1)(a)(ii) and (2)(a)(ii). NSCC currently applies a haircut for corporate and municipal bonds pursuant to (1)(a)(iii) and (2)(a)(iii) and long Net Unsettled Positions in Family-Issued Securities pursuant to subsections (1)(a)(iii) and (2)(a)(iii) and does not apply a haircut for those securities pursuant to subsections (1)(a)(ii) or (2)(a)(ii).[52] The proposed changes are intended to improve Members'

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52 As discussed above, currently, short Net Unsettled Positions in Family-Issued Securities whose volatility is less amenable to statistical analysis are subject to the haircut set forth in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV. In addition, short Net Unsettled Positions in Family-Issued Securities that are Illiquid Positions are currently subject to the Illiquid Charge.

transparency into the treatment of Net Unsettled Positions in corporate and municipal bonds and long Net Unsettled Positions in Family-Issued Securities in Section I.(A) of Procedure XV and would not change NSCC's methodology with respect to corporate and municipal bonds or long Net Unsettled Positions in Family-Issued Securities.

Expected Effect on and Management of Risk

NSCC believes that the proposed changes to enhance the margining methodology applied to Illiquid Securities and UITs and to eliminate the Illiquid Charge would enable NSCC to better limit its risk exposures to Members arising out of their Net Unsettled Positions.

First, the proposal to enhance the methodology for identifying Illiquid Securities would improve NSCC's ability to limit its risk exposures posed by Net Unsettled Positions in these securities by allowing it to (1) better identify securities that exhibit illiquid characteristics, and (2) calculate a volatility margin component that is appropriate for those characteristics.

Second, the proposal to enhance the calculation of the volatility component applied to Net Unsettled Positions in Illiquid Securities and in UITs would enable NSCC to limit its credit exposures posed by these securities. The proposal would more appropriately address the risks presented by a Net Unsettled Position in these securities by applying a calculation that considers a security's price level and risk profile when determining the haircut percentage to be used in that calculation. Therefore, by enabling NSCC to calculate and collect margin that more accurately reflects the risk characteristics of Illiquid Securities and UITs in its Members' Net Unsettled Positions, these proposals would enhance NSCC's risk management capabilities.

Finally, NSCC's proposal to eliminate the Illiquid Charge would affect NSCC's management of risk by removing a component from the Clearing Fund calculations that is no longer needed to address the risks posed by Net Unsettled Positions in Illiquid Securities. Such risks would be better addressed by the proposed changes to the methodology for identifying Illiquid Securities and the enhancement to the calculation of the applicable volatility charge. This proposed change would remove a component from its Clearing Fund that would no longer be needed to effectively manage risks.

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.[53]

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

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[53] See 12 U.S.C. 5461(b).

with certain of the risk management standards adopted by the Commission pursuant to Section 805(a)(2), for the reasons described below.[54]

(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 and in the Covered Clearing Agency Standards.

As discussed above, NSCC is proposing to (i) change to the way it identifies illiquid securities and the way it calculates the volatility component of the Clearing Fund as applied to Net Unsettled Positions in illiquid securities and UITs, (ii) enhance the calculation of the haircut-based volatility component of the Clearing Fund Formula that is applied to such illiquid securities and UITs and (iii) eliminate the Illiquid Charge as the risk it was designed to address would be addressed by the other 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.

First, NSCC's proposal to introduce additional criteria for identifying illiquid securities by enhancing the definition of "Illiquid Security" and using the definition for purposes of determining the volatility component of the Clearing Fund formula would better enable NSCC to limit its exposures to Net Unsettled Positions in securities that

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[54] 12 U.S.C. 5464(a)(2) and (b).

exhibit illiquid characteristics. Second, the proposal to enhance the calculation of the haircut-based volatility charge as applied to Illiquid Securities and UITs would better enable NSCC to limit its exposures to Members by basing this calculation on the risk characteristics of these securities. Finally, NSCC's proposal to eliminate the Illiquid Charge would enable NSCC to remove a component of the Required Fund Deposit that is no longer needed to address risks that would be more adequately addressed through the proposed enhancements to existing risk management measures, as described above.

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.[55] 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 the definition of Illiquid Security are designed to capture additional securities that exhibit illiquid characteristics, and would allow NSCC to limit its exposure to Members by applying a volatility component that is a more appropriate measure of volatility for Net Unsettled Positions in these securities. The proposed enhancements to the haircut-based volatility charge for Illiquid Securities and UITs would allow NSCC to collect margin at levels that better reflect the risk presented by these Net Unsettled Positions and would help NSCC limit its exposures to Members.

Removing the Illiquid Charge would help ensure the Clearing Fund calculation would not include unnecessary components, particularly as NSCC would be better able to

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[55] 12 U.S.C. 5464(b).

address the risks this charge was designed to address through the other proposed risk management enhancements.

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.[56]

(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.[57] 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").[58]

The Covered Clearing Agency Standards require registered clearing agencies to establish, implement, maintain, and enforce written policies and procedures that are

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56 Id.

57 12 U.S.C. 5464(a)(2).

58 17 CFR 240.17Ad-22(e).

reasonably designed to meet certain minimum requirements for their operations and risk management practices on an ongoing basis.[59] NSCC believes that the proposed changes are consistent with Rules 17Ad-22(e)(4)(i) and (e)(6)(i) and (v), each promulgated under the Act.[60]

Rule 17Ad-22(e)(4)(i) under the Act[61] 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.

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. More specifically, the proposed changes to the methodology for identifying Illiquid Securities would allow NSCC to better identify securities that may present credit exposures, for purposes of applying an appropriate margin charge. The proposed enhancements to the volatility charge applicable to Illiquid Securities and UITs would provide NSCC with a more effective measure of the risks that may be presented to NSCC by positions in the securities. Specifically, the proposal to base the calculation of the haircut-based volatility

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59 Id.

60 17 CFR 240.17Ad-22(e)(4)(i) and (e)(6)(i) and (v).

61 17 CFR 240.17Ad-22(e)(4)(i).

charge applied to positions in Illiquid Securities and UITs on those securities' price level and risk profile would enable NSCC to manage its credit exposures by allowing NSCC to collect and maintain sufficient resources to cover those credit exposures fully with a high degree of confidence. As an example, a recent impact study indicated that under the current methodology short positions in sub-penny securities and securities priced between one cent and one dollar exhibited the lowest average backtesting coverage percentages with 96.2% during the study period, whereas using the proposed methodology average backtesting coverage percentage for such securities would have increased to 99.5% over the study period. NSCC also believes that with the proposed changes NSCC could remove the Illiquid Charge from the Clearing Fund formula because the proposed changes would provide NSCC with a more effective measure of risks related to Net Unsettled Positions in Illiquid Securities. As such, the proposed enhancements to the calculation of the volatility component would permit NSCC to more effectively identify, measure, monitor and manage its exposures to risk, and would enable it to better limit its exposure to potential losses from Member default.

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.[62]

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[62] Id.

Rule 17Ad-22(e)(6)(i) under the Act[63] 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.

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. NSCC is proposing changes that are designed to more effectively address risk characteristics of Net Unsettled Positions in Illiquid Securities. NSCC believes that these changes would enable NSCC to produce margin levels that are more commensurate with the particular risk attributes of these securities, including the risk of increased transaction and market costs to NSCC to liquidate or hedge due to lack of liquidity or marketability of such positions.

For example, by enhancing the methodology for Illiquid Securities through an additional review of market capitalization of a security and the use of an illiquidity ratio, NSCC believes that the proposed change would allow NSCC to better identify those securities that may exhibit illiquid characteristics. The proposed changes to the haircut-based methodology to base the calculation on the price level and risk profile of the applicable security, rather than a static percent, would, NSCC believes, enable NSCC to more effectively measure the risks that are particular to Illiquid Securities and UITs. Backtesting results indicate that by calculating a haircut-based volatility charge that addresses the risks presented by a security's price level or risk profile, the proposed

[63] 17 CFR 240.17Ad-22(e)(6)(i).

methodology would result in a volatility charge that more appropriately addresses the risk of these securities.

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 exhibit illiquid risk attributes. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(i) under the Act.[64]

Rule 17Ad-22(e)(6)(v) under the Act[65] 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, uses an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products. NSCC is proposing to eliminate the Illiquid Charge because, NSCC believes, the other proposed changes would provide NSCC with a more effective measure of the risks presented by Illiquid Securities. Eliminating this charge would enable NSCC to remove what would become, with the implementation of the other proposed changes, an unnecessary component from the Clearing Fund calculation, and would help NSCC to rely on a more appropriate method of measuring its exposures to this risk. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(v) under the Act.[66]

Accelerated Commission Action Requested

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64 Id.

65 17 CFR 240.17Ad-22(e)(6)(v).

66 Id.

Pursuant to Section 806(e)(1)(I) of the Clearing Supervision Act,[67] NSCC requests that the Commission notify NSCC that it has no objection to the Advance Notice as soon as practicable. As discussed in this filing, the proposed changes would improve NSCC's ability to manage the risks presented to it by positions in illiquid securities and UITs. More specifically, the proposed changes would (1) allow NSCC to better identify securities that exhibit illiquid characteristics and may present credit exposures for purposes of applying an appropriate margin charge, and (2) enhance the volatility charge applicable to illiquid securities and UITs to provide NSCC with a more effective measure of the risks that may be presented to NSCC by positions in these securities.

NSCC believes that both the current and recent market volatility, as well as rapidly developing world events that could be reasonably expected to cause prolonged and potentially extreme market volatility, could have a sudden negative impact on liquidity in certain market segments.

Therefore, NSCC believes that there is good cause for the Commission to notify NSCC that it has no objection to the Advance Notice as soon as practicable, to allow NSCC to implement these important and time-sensitive risk management enhancements and have the ability to more effectively mitigate the risks presented by positions in illiquid securities and UITs.

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

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[67] 12 U.S.C. 5465(e)(1)(I).

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 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. Please include File Number SR-NSCC-2020-802 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-2020-802. 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 (http://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-2020-802 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

By the Commission.

Secretary

EXHIBIT 3

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PAGE REDACTED IN ITS ENTIRETY

EXHIBIT 5

NATIONAL SECURITIES CLEARING CORPORATION

RULES & PROCEDURES

TEXT OF PROPOSED RULE CHANGE

<u>Bold and underlined</u> text indicates proposed added language.

~~**Bold and strikethrough**~~ text indicates proposed deleted language.

<u>Bold, double underlined and shaded</u> text indicates proposed language added in connection with a separate proposal that has not yet been approved (SR-NSCC-2020-002, filed on January 28, 2020).

~~**Bold, strikethrough and shaded**~~ text indicates proposed language deleted in connection with a separate proposal that has not yet been approved (SR-NSCC-2020-002, filed on January 28, 2020).

RULE 1. DEFINITIONS AND DESCRIPTIONS

Unless the context requires otherwise, the terms defined in this Rule shall, for all purposes of these Rules, have the meanings herein specified.

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~~***Illiquid Position***~~

~~**The term "Illiquid Position" means a Net Unsettled Position in an Illiquid Security that exceeds applicable volume thresholds. For net buy positions in an Illiquid Security, the volume thresholds shall be no greater than 100 million shares and based on the Member's rating on the Credit Risk Rating Matrix. For net sell positions in an Illiquid Security, the volume threshold shall be no greater than 1 million shares on an absolute value basis, and based on both the Member's excess net capital and the Member's rating on the Credit Risk Rating Matrix.**~~

~~**In determining if the volume threshold is met with respect to a net sell position in Illiquid Securities, the Corporation shall apply an offset against shares of Illiquid Securities in the Member's inventory at DTC to the quantity of shares in a Member's Illiquid Position. Such offset shall not be applied to (1) net buy positions in Illiquid Securities, or (2) Members that have the weakest rating on the Credit Risk Rating Matrix.**~~

Illiquid Security

The term "Illiquid Security" means a security~~**, other than a family-issued security as defined in Procedure XV,**~~ that either

(i) is not ~~**traded on or subject to the rules of**~~<u>listed on </u>a ~~**national**~~<u>**specified**</u> securities exchange <u>**(defined below)**</u>~~**registered under the Securities Exchange Act of 1934, as amended**~~<u>**, as determined on a daily basis**</u>; ~~**or**~~

<u>**(ii) is listed on a specified securities exchange and, as determined on a monthly basis, (a)(i) its market capitalization is considered a micro-capitalization as of the last business day of the prior month or (ii) it is an American depositary receipt and (b) the median of its calculated illiquidity ratio (defined below) of the prior six months exceeds a threshold that will be determined by the Corporation on a monthly basis that is based on the 99th percentile of the illiquidity ratio of all non-micro-capitalization common stocks over the prior six months; or**</u>

<u>**(iii)**</u> ~~**(ii) is an OTC Bulletin Board or OTC Link issue**~~ <u>**is listed on a specified securities exchange, and, as determined on a monthly basis, has fewer than 31 business days of trading history over the**</u>

past 153 business days on such exchange.

For purposes of this definition,

(i) a "specified securities exchange" is a national securities exchange that has established listing services and is covered by industry pricing and data vendors.

(ii) a security's market capitalization shall be considered micro-capitalization if its capitalization is below a threshold to be determined by the Corporation from time to time. The Corporation will set the micro-capitalization threshold at a level that the Corporation determines indicates that securities with such capitalization exhibit illiquid characteristics based on its regular review of margining methodologies. Initially, the capitalization threshold shall be $300 million and may be updated from time to time as announced by Important Notice. For purposes of this criterion, NSCC would calculate the product of the outstanding shares and market price with respect to a security on a daily basis. Each month, NSCC would use the average of those calculations over the prior month to determine market capitalization with respect to a security.

(iii) the "illiquidity ratio" of a security on any day is equal to (i) the price return of such security on such day (based on the natural logarithm of the ratio between the closing price of the security on such day to the closing price of the security on the prior trading day) divided by (ii) the average daily trading amount[1] of such security over the prior 20 business days. [2]

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[1] The daily trading amount equals the daily trading volume multiplied by the end of day price.

[2] Securities that are exchange-traded products or American depositary receipts are not included when calculating the illiquidity ratio threshold. In addition, if the Corporation is unable to retrieve data to calculate the illiquidity ratio for the median illiquidity ratio for a security on any day, the Corporation will use a default value for that day for purposes of the calculation for the security (i.e., the security would essentially be treated as illiquid for that day).

PROCEDURE XV. CLEARING FUND FORMULA AND OTHER MATTERS[3]

I.(A) Clearing Fund Formula for Members

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(1) For CNS Transactions

(a)(i) The volatility of such Member's net of unsettled Regular Way, When-Issued and When-Distributed pending positions (i.e., net positions that have not yet passed Settlement Date) and fail positions (i.e., net positions that did not settle on Settlement Date), hereinafter collectively referred to as Net Unsettled Positions, which shall be the highest resultant value among the following:

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 Securities Exchange Act of 1934, 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".

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

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

stress period,[4] 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.

(ii)**(A)** The Corporation shall have the discretion to exclude from the calculations in subsection (i) above Net Unsettled Positions in**:**

(I) ~~classes of~~ securities **that are not Illiquid Securities** whose volatility is ~~(x)~~ less amenable to statistical analysis**, and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage shall not be less than 10%; and**~~, such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars),~~

(II) ~~or (y)~~ **securities that are not unit investment trusts whose volatility is** amenable to generally accepted statistical analysis only in a complex manner, ~~other than municipal and corporate bonds.~~ **and shall instead calculate an amount** ~~The amount of Clearing Fund required with respect to such Net Unsettled Positions shall be~~

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

~~**determined**~~ by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage ~~**shall be not less than 10% in respect of the positions covered by subsection x of this paragraph and**~~ shall be not less than 2%**.**~~**in respect of the positions covered by subsection y of this paragraph.**~~

(B) The Corporation shall exclude from the calculations in subsection (i) above Net Unsettled Positions in:

(I) **Illiquid Securities, and shall instead (A) group such securities by price level, and Illiquid Securities that are sub-penny securities shall be separately grouped by long or short positions, and (B) calculate an amount for each such grouping by multiplying the absolute value of the positions in each group by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price,**[5] **and shall be the highest of (1) 10%, (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years, and (3) a percent benchmarked to be sufficient to cover 99th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years after incorporating a fixed transaction cost equal to one-half of the estimated bid-ask spread; and**

(II) **unit investment trusts, and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price, and shall be the highest of (1) 2% and (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of unit investment trusts in each Member's portfolio using a look-back period of no less than 5 years.**

The Corporation shall exclude from the calculations in subsection (i) above **and this subsection (ii),** (A) **Net Unsettled Positions in** municipal and corporate bonds, which are addressed in subsection (iii) below, and (B) **long Net Unsettled Positions in** Family-Issued Securities, which are addressed in subsection (iv) below.

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[5] **The Current Market Price of each sub-penny security is deemed to be one cent.**

(iii) The Corporation shall exclude from the calculations in subsection**s** (i) **and (ii)** above Net Unsettled Positions in corporate and municipal bonds. The amount of Clearing Fund required with respect to Net Unsettled Positions in corporate and municipal bonds shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation, which shall be not less than 2%, calculated as follows:

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(iv) The Corporation shall exclude from the calculations in subsection**s** (i) **and (ii)** above long Net Unsettled Positions in Family-Issued Securities. The amount of Clearing Fund required with respect to long Net Unsettled Positions in Family-Issued Securities shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation; such percentage shall be **(A)** no less than **4****8**0% **for long Net Unsettled Positions in fixed income securities that are Family-Issued Securities,** and **(B)** ~~up to~~ 100% **for long Net Unsettled Positions in equity securities that are Family-Issued Securities**~~, and shall be determined, from time to time, in the sole discretion of the Corporation, within parameters described below, based on the Member's rating on the Credit Risk Rating Matrix and the type of Family-Issued Securities submitted to the Corporation:~~**;**

~~(A) Fixed income securities that are Family-Issued Securities shall be charged a haircut rate of no less than 80% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 40% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix.~~

~~(B) Equity securities that are Family-Issued Securities shall be charged a haircut rate of 100% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 50% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix;~~

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(g) a coverage component charge calculated as the EWMA of the Member's daily backtesting coverage deficiency amount over a 100-day look back period; the Member's backtesting deficiency amount for each day is determined as the difference between the simulated profit and loss on the Member's portfolio and the sum of the Member's (i) volatility component~~,~~ **and** (ii) margin requirement differential component~~, and (iii) Illiquid Charge~~.

~~plus~~

~~(h) For Illiquid Positions, an amount ("Illiquid Charge") equal to:~~

~~(1) for buy positions in sub-penny Illiquid Securities, the aggregate shares in such positions multiplied by $0.01, or~~

~~**(2) for sell positions,**~~

~~**(a) if the position has a Current Market Price equal to or below $1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High Price, or (ii) the Current Market Price of the Illiquid Securities in the position multiplied by a factor of between 2 and 10, based on the minimum share price, which shall not be less than $0.01; and**~~

~~**(b) if the position has a Current Market Price that is greater than $1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High Price, or (ii) the Current Market Price of the Illiquid Securities in the position rounded up to the next $0.50.**~~

~~**For purposes of (2)(a) and (b) above, in determining whether to use the One Month High Price or the Current Market Price of the Illiquid Securities in the Illiquid Position,**~~

~~**(A) if the share quantity in the Illiquid Position is less than 100 percent and greater than or equal to 25 percent of the average daily volume ("ADV"), the calculation shall use the lesser of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next $0.50, if applicable); and**~~

~~**(B) if the share quantity in the Illiquid Position is greater than or equal to 100 percent of the ADV, the calculation shall use the greater of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next $0.50, if applicable).**~~

~~**Members that are not rated by the Credit Risk Rating Matrix are not subject to the Illiquid Charge.**~~

(2) For Balance Order Transactions

(a) (i) The volatility of such Member's net of unsettled Regular Way, When-Issued and When-Distributed positions that have not yet passed Settlement Date, hereinafter collectively referred to as Net Balance Order Unsettled Positions, which shall be the highest resultant value among the following:

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 Securities Exchange Act of 1934, 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".

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,[6] 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

[6] 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.

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.

(ii)**(A)** The Corporation shall have the discretion to exclude from the calculations in subsection (i) above Net Balance Order Unsettled Positions in**:**

(I) ~~classes of~~ securities **that are not Illiquid Securities** whose volatility is ~~(x)~~ less amenable to statistical analysis**, and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage shall not be less than 10%; and**~~, such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars),~~

(II) ~~or (y)~~ **securities that are not unit investment trusts whose volatility is** amenable to generally accepted statistical analysis only in a complex manner, ~~other than municipal and corporate bonds.~~ **and shall instead calculate an amount** ~~The amount of Clearing Fund required with respect to such Net Unsettled Positions shall be determined~~ by multiplying the absolute value of such positions by a percentage designated by the Corporation, which percentage ~~shall be not less than 10% in respect of the positions covered by subsection x of this paragraph and~~ shall be not less than 2%**.**~~in respect of the positions covered by subsection y of this paragraph.~~

(B) The Corporation shall exclude from the calculations in subsection (i) above Net Balance Order Unsettled Positions in:

(I) **Illiquid Securities, and shall instead (A) group such securities by price level, and Illiquid Securities that are sub-penny securities shall be separately grouped by long or short positions, and (B) calculate an amount for each such grouping by multiplying the absolute value of the positions in each group by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price,**[7] **and shall be the highest of (1) 10%, (2) a percent benchmarked to**

[7] **The Current Market Price for each sub-penny security is deemed to be one cent.**

be sufficient to cover 99.5th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years, and (3) a percent benchmarked to be sufficient to cover 99th percentile of the historical 3-day return of each group in each Member's portfolio using a look-back period of no less than 5 years after incorporating a fixed transaction cost equal to one half of the estimated bid-ask spread; and

(II) **unit investment trusts, and shall instead calculate an amount by multiplying the absolute value of such positions by a percentage designated by the Corporation at least annually, which percentage shall be based on the security's Current Market Price, and shall be the highest of (1) 2% and (2) a percent benchmarked to be sufficient to cover 99.5th percentile of the historical 3-day return of unit investment trusts in each Member's portfolio using a look-back period of no less than 5 years.**

The Corporation shall exclude from the calculations in subsection (i) above **and this subsection (ii),** (A) **Net Balance Order Unsettled Positions in** municipal and corporate bonds, which are addressed in subsection (iii) below, and (B) **long Net Balance Order Unsettled Positions in** Family-Issued Securities, which are addressed in subsection (iv) below.

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(iii) The Corporation shall exclude from the calculations in subsection**s** (i) **and (ii)** above Net Balance Order Unsettled Positions in corporate and municipal bonds. The amount of Clearing Fund required with respect to Net Balance Order Unsettled Positions in corporate and municipal bonds shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation, which shall be not less than 2%, calculated as follows:

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(iv) The Corporation shall exclude from the calculations in subsection**s** (i) **and (ii)** above long Net Balance Order Unsettled Positions in Family-Issued Securities. The amount of Clearing Fund required with respect to long Net Balance Order Unsettled Positions in Family-Issued Securities shall be determined by multiplying the absolute value of such positions by a percentage designated by the Corporation; such percentage shall be **(A)** no less than **48**0% **for long Net Balance Order Unsettled Positions in fixed income securities that are Family-Issued Securities,** and **(B)** ~~**up to**~~ 100% **for long Net Balance Order Unsettled Positions in equity securities that are Family-Issued Securities**~~**,**~~ ~~**and shall be determined, from time to time, in the sole discretion of the Corporation, within parameters described below, based on the Member's**~~

~~**rating on the Credit Risk Rating Matrix and the type of Family-Issued Securities submitted to the Corporation:**~~**;**

~~**(A) Fixed income securities that are Family-Issued Securities shall be charged a haircut rate of no less than 80% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 40% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix.**~~

~~**(B) Equity securities that are Family-Issued Securities shall be charged a haircut rate of 100% for firms that are rated 6 or 7 on the Credit Risk Rating Matrix, and no less than 50% for firms that are rated 1 through 5 on the Credit Risk Rating Matrix;**~~

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plus

(e) a coverage component charge calculated as the EWMA of the Member's daily backtesting coverage deficiency amount over a 100-day look back period; the Member's backtesting deficiency amount for each day is determined as the difference between the simulated profit and loss on the Member's portfolio and the sum of the Member's (i) volatility component, **and** (ii) margin requirement differential component~~**, and (iii) Illiquid Charge**~~.

~~**plus**~~

~~**(f) For Illiquid Positions, an Illiquid Charge equal to:**~~

~~**(1) for buy positions in sub-penny Illiquid Securities, the aggregate shares in such positions multiplied by $0.01, or**~~

~~**(2) for sell positions,**~~

~~**(a) if the position has a Current Market Price equal to or below $1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High Price, or (ii) the Current Market Price of the Illiquid Securities in the position multiplied by a factor of between 2 and 10, based on the minimum share price, which shall not be less than $0.01; and**~~

~~**(b) if the position has a Current Market Price that is greater than $1.00, the product of the aggregate quantity of Illiquid Securities in the position and either (i) the One Month High**~~

~~**Price, or (ii) the Current Market Price of the Illiquid Securities in the position rounded up to the next $0.50.**~~

~~**For purposes of (2)(a) and (b) above, in determining whether to use the One Month High Price or the Current Market Price of the Illiquid Securities in the Illiquid Position,**~~

~~**(A) if the share quantity in the Illiquid Position is less than 100 percent and greater than or equal to 25 percent of the ADV, the calculation shall use the lesser of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next $0.50, if applicable); and**~~

~~**(B) if the share quantity in the Illiquid Position is greater than or equal to 100 percent of the ADV, the calculation shall use the greater of the One Month High Price or the Current Market Price of the Illiquid Securities (rounded up to the next $0.50, if applicable).**~~

~~**Members that are not rated by the Credit Risk Rating Matrix are not subject to the Illiquid Charge.**~~

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