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

File No.* SR - 2019 - * 004

Amendment No. (req. for Amendments *)

Filing by National Securities Clearing Corporation

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

Initial * [x] Amendment * [ ] Withdrawal [ ]

Section 19(b)(2) * [x] 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 [x]

Description

Provide a brief description of the action (limit 250 characters, required when Initial is checked *).

Enhance Haircut-Based Volatility Charge Applicable to Municipal Bonds

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 12/13/2019

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 Proposed Rule Change

(a) The proposed rule change of National Securities Clearing Corporation ("NSCC") is annexed hereto as Exhibit 5 and consists of modifications to NSCC's Rules & Procedures ("Rules")[1] to enhance NSCC's haircut-based volatility charge applicable to municipal bonds (the "Bond Haircut"). References to the Bond Haircut in this document refer only to that charge as applied to municipal bonds. The 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 February 26, 2019.

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

(a) Purpose

NSCC is proposing a number of enhancements to NSCC's Bond Haircut, as described in greater detail below.

The Required Fund Deposit and the Bond Haircut

As part of its market risk management strategy, NSCC manages its credit exposure to Members by determining the appropriate Required Fund Deposit for each Member and monitoring its sufficiency, as provided for in the Rules.[2] The Required Fund Deposit serves as each Member's margin. The objective of a Member's Required Fund Deposit is to mitigate potential losses to NSCC associated with liquidation of the Member's portfolio in the event NSCC ceases to act for that Member (hereinafter referred to as a "default").[3] The aggregate of

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

3 The Rules identify when NSCC may cease to act for a Member and the types of actions NSCC may take. For example, NSCC may suspend a firm's membership with NSCC or

all Members' Required Fund Deposits, together with certain other deposits required under the Rules, constitute the Clearing Fund of NSCC, which it would access 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.[4] 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,[5] 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 largest non-index position in a portfolio that exceeds a concentration threshold, and (3) a portfolio margin floor calculation based on the market values of the long and short positions in the portfolio ("VaR Charge").[6] Pursuant to Sections I(A)(1)(a)(ii) and I(A)(2)(a)(ii) of Procedure XV, certain positions in certain classes of securities, including municipal bonds, 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 such positions by a percentage designated by NSCC which shall not be less than 2%.[7]

Existing Municipal Bond Haircut Methodology

The existing methodology for calculating the Bond Haircut is described in Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV.[8] In order to determine the current

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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.

4 Procedure XV, supra note 1.

5 "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.

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

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

8 Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV, supra note 1.

Bond Haircut, municipal bonds are categorized into tenor-based groups (i.e., based on remaining time to maturity) and separately categorized by municipal sector. Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV provide that NSCC shall establish a percentage applicable to each tenor-based group and pursuant to those sections NSCC has established a percentage (which is not less than 2%) for each tenor-based group which is used to calculate the haircut-based charge applicable to that group.[9] For municipal bonds rated higher than BBB+, NSCC has established a tenor-based haircut for each tenor-based group. For example, a municipal bond rated above BBB+ with 3 years to maturity and $10MM short position, will be subject to the 2-5 years tenor-based group haircut (5%) which will be applied to the absolute market value of the positions resulting in $500K haircut-based charge.

Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV provide that NSCC shall assign each municipal sector a risk factor.[10] For municipal bonds rated lower than a pre-determined threshold, which shall be no lower than BBB+, and non-rated municipal bonds, NSCC has established a percentage based on a sector-based risk factor which is also applied to the tenor-based haircut. For example, a municipal bond in the healthcare sector, rated BBB+ or lower with 3 years to maturity and $10MM short position, will be subject to the 2-5 years tenor-based group haircut (5%) multiplied by the sector-based factor (1.2), resulting in 6% haircut-based charge of $600K. This additional sector-based risk factor is added because variable risk factors exist between municipal sectors based on the various industries in which the bonds are issued and the source of repayment for the bonds. For instance, general obligation bonds are typically backed by the taxing power of their issuer and repaid from general taxes whereas transportation or healthcare-related bonds may be repaid from funds from a specific project based on the revenues of the project. Such risk factor is based on the sector index's spread to a benchmark index.[11] NSCC uses a vendor to match bonds to particular sectors. If a municipal bond does not fit within any particular sector, the highest sector-based risk factor is applied to such municipal bond. Currently, the highest sector-based risk factor is 2.6 used for bonds in the housing sector.

Enhancements to Municipal Bond Haircut Methodology

NSCC regularly assesses its market and liquidity 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. In connection with such regular reviews, NSCC has determined based on impact studies that, under current market conditions, the current margin levels with respect to municipal bonds using the current methodology exceed the levels necessary to offset the risks with respect to these securities. Based on impact studies, NSCC has determined that changes to its current methodology for municipal bonds would result in margin levels that are lower and more commensurate with the

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9 Id.

10 Id.

11 The "spread" is the difference in the yield curve of the sector index to the yield curve of a benchmark index which is indicative of the added risk presented by the sector.

risk attributes of those securities. In particular, as described below, NSCC is proposing to replace the municipal sector-based risk factor for lower rated municipal bonds with a percentage derived using the historical returns of applicable benchmark indices.

NSCC is proposing the following enhancements to the methodology used for calculating the Bond Haircut.

First, NSCC is proposing to re-calibrate the Bond Haircut not less frequently than annually. Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV currently provide that each municipal sector is assigned a risk factor no less frequently than annually.[12] As discussed above and below, the enhanced methodology for calculating Bond Haircuts would no longer include the straight risk factor by sector. The re-calibration of the Bond Haircut not less frequently than annually would replace the assignment of a straight risk factor no less frequently than annually. NSCC believes that the periodic re-calibration would help ensure that NSCC is reviewing the Bond Haircut with enough regularity to ensure that the margin levels are commensurate with the particular risk attributes of municipal bonds.

While the proposed rule change would provide that NSCC would re-calibrate not less frequently than annually, NSCC would initially re-calibrate the Bond Haircut on a quarterly basis. NSCC could change how often it recalibrates from time to time based on its regular review of margining methodologies; provided, that it would recalibrate not less frequently than annually pursuant to the proposed rule change. Changes to the frequency of calibration would be subject to NSCC's risk management practices which would require, among other things, approval by the DTCC Model Risk Governance Committee ("MRGC").[13]

Second, municipal bonds would be grouped into tenor-based groups and by credit rating, and municipal bonds that are rated BBB+ or lower, or that are not rated, would also be separately categorized by municipal sector. NSCC would then establish a percentage haircut for each group based on the (1) the historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; (2) a pre-determined look-back period, which shall not be shorter than 10 years; and (3) a pre-determined calibration percentile, which shall not be less than 99%.

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12 Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV, supra note 1.

13 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 Clearing Agency Model Risk Management Framework ("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 the Bond Haircut. Id.

For municipal bonds that are rated higher than BBB+, NSCC is proposing to use a tenor-based index (i.e., based on time to maturity) as the applicable benchmark index. While the proposed rule change would provide that NSCC would base such percentage for bonds that are rated higher than BBB+ on historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; NSCC would initially base the percentage derived from a benchmark municipal tenor-based index over a 3-day price return from the index. NSCC could change which applicable benchmark indices it uses and the applicable period for the price return used in the calculation from time to time based on its regular review of margining methodologies. Changes to the frequency of calibration would be subject to NSCC's risk management practices which would require, among other things, approval by the MRGC.[14]

For municipal bonds that are rated BBB+ or lower, or are not rated, NSCC is proposing to use a percentage derived from the maximum of the applicable tenor-based index, municipal bond sector-based indices and a high-yield index. Rather than multiply the tenor-based haircut by a straight risk factor for each municipal sector, as is done under the current methodology, the Bond Haircut for these lower rated or non-rated municipal bonds would be determined by using the maximum percent derived from either the applicable tenor-based index, the municipal bond sector-based indices or a high yield index. The enhancement would account for risks represented by the tenor, sector and high-yield characteristics that may be presented by these municipal bonds by using the maximum percent that is derived from either a tenor-based index, sector-based indices or a high yield index, rather than addressing these risks by multiplying the percent derived from a tenor-based index by a straight sector-based risk factor. Based on analysis of the impact studies, NSCC believes that the use of a risk factor based on the tenor-based index, municipal bond sector-based indices and a high-yield index would result in lower margins with respect to these securities that are sufficient to offset the risks with respect to these securities

While the proposed rule change would provide that NSCC would base such percentage on historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; NSCC would initially base the percentage derived from a tenor-based index, municipal bond sector-based indices and a high-yield index over a 3-day price return from the indices. NSCC could change which applicable benchmark indices it uses and the applicable period for the price return used in the calculation from time to time based on its regular review of margining methodologies in accordance with its risk management practices which would require, among other things, approval by the MRGC.[15]

In extraordinary circumstances, a certain municipality or issuer may present unique risks beyond the calibrated tenor, sector and high-yield factors. For example, the market price risk for issues of a municipality facing technical default following a natural disaster may not be fully captured due to the liquidity profile of municipal securities. Therefore, NSCC would reserve the right to apply the highest haircut of all municipal bonds to a specific issuer in such instances.

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14 See note 13.

15 See note 13.

NSCC would apply the highest haircut in accordance with its risk management practices, including approval by an officer of NSCC in the risk management department, following a review of the circumstances facing the municipality and a finding that the market price movement raises risks that are not accounted for by the Bond Haircut methodology.

Finally, the recalibration of the Bond Haircut would apply a pre-determined look-back period. NSCC would initially apply a look-back period of a 10-year rolling window plus a one calendar year "worst case scenario" stress period. NSCC believes this look-back period is appropriate because it would capture relevant data and is adequate to cover enough market activity, while not diluting the "tail" with an abundance of data.[16]

While the proposed rule change would provide that NSCC would apply a pre-determined look-back period, which shall not be shorter than 10 years, NSCC would initially apply a look-back period of a 10-year rolling window plus a one calendar year "worst case scenario" stress period. NSCC could change the look-back period from time to time based on its regular review of margining methodologies in accordance with its risk management practices which would require, among other things, approval by the MRGC.[17]

Proposed Rule Changes to Procedure XV

In order to implement the proposed enhancements to the Bond Haircut methodology described above, Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV would be revised to provide that: (i) municipal bonds would be grouped by both "remaining time to maturity" and credit rating, and municipal bonds that are BBB+ or lower, or that are not rated, would be separately categorized by municipal sector, (ii) NSCC would establish the Bond Haircut percentages no less frequently than annually, (iii) the Bond Haircut percentage to be applied to municipal bonds would apply to each grouping of municipal bonds and (iv) the Bond Haircut percentage to be applied to municipal bonds would be based on (1) the historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; (2) a pre-determined look-back period; and (3) a pre-determined calibration percentile, which shall not be less than 99%. In addition, Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV would be revised to remove the references to the municipal sector factor and the current application of the municipal sector factor in the last four sentences in Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV. A sentence would also be added to Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV to provide that in extraordinary circumstances where NSCC determines that a certain municipality or issuer of municipal bonds presents unique risks that are not captured by the grouping set forth in those subsections, NSCC may, in its discretion, apply

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16 NSCC believes that a 10-year window with a one-year stress period is typically long enough to capture at least two recent market cycles. NSCC believes that data over a longer period will "flatten" out the results because recent volatile periods will be offset by non-volatile periods, making the more recent volatility appear less significant.

17 <u>See</u> note 13.

the highest percentage being applied to any municipal bond group pursuant to those subsections to municipal bonds issued by such municipality or issuer.

(b) Statutory Basis

NSCC believes that the proposed changes described above are consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. In particular, NSCC believes that the proposed changes are consistent with Section 17A(b)(3)(F) of the Act,[18] and Rules 17Ad-22(e)(4)(i), (e)(6)(i) and (e)(6)(v), each promulgated under the Act,[19] for the reasons described below.

Section 17A(b)(3)(F) of the Act[20] requires that the Rules be designed to, among other things, assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible. NSCC believes the proposed changes are designed to assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible because they are designed to enable NSCC to more accurately calculate the necessary margin relating to Net Unsettled Positions in municipal bonds while continuing to limit its exposure to Members in the event of a Member default.

NSCC believes that the proposed changes to (i) re-calibrate the Bond Haircut no less frequently than annually, (ii) apply a risk factor based on multiple benchmark indices for lower rated or non-rated municipal bonds rather than a straight sector-based risk factor, (iii) calibrate the percent to a pre-determined percentile that would not be less than 99% level and (iv) apply a pre-determined look-back period, would help ensure that the margin levels with respect to municipal bonds would be commensurate with the particular risk attributes of municipal bonds. Backtesting results conducted by NSCC have shown that the current methodology for calculating the Bond Haircut, using a straight municipal sector factor by sector, at times, results in coverage of 100%. NSCC has determined based on impact studies that, under current market conditions, the current margin levels with respect to municipal bonds using the current methodology exceed the levels necessary to offset the risks with respect to these securities. Backtesting results conducted by NSCC indicated that using the highest percentage from applicable benchmark indices in the enhanced methodology rather than the straight municipal sector factor as in the current methodology would result in the desired margin coverages to offset risk while reducing the average Required Fund Deposit for Members. In addition, by reserving the right to apply the highest risk factor in certain circumstances, NSCC would be protected from extraordinary circumstances where NSCC determines that the percentage to be applied to a particular grouping of municipal bonds does not fully capture the risks represented by that municipality or issuer. In this way, the haircut-based volatility charge for Net Unsettled Positions in municipal bonds would be calculated to help enable NSCC to collect margin at levels that better reflect the risk presented by these Net Unsettled Positions to help NSCC limit its exposure to Members.

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18 15 U.S.C. 78q-1(b)(3)(F).

19 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i), (e)(6)(v).

20 15 U.S.C. 78q-1(b)(3)(F).

The Clearing Fund is composed of Members' Required Fund Deposits that include the volatility component and is a key tool that NSCC uses to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event of Member default. Therefore, NSCC believes that each of the proposed changes listed above would help enable NSCC to more accurately calculate the necessary margin relating to Net Unsettled Positions in municipal bonds while continuing to limit its exposure to Members such that, in the event of Member default, NSCC's operations would not be disrupted and non-defaulting Members would not be exposed to losses they cannot anticipate or control. In this way, the proposed rules are designed to assure the safeguarding of securities and funds which are in the custody or control of NSCC or for which it is responsible and therefore consistent with Section 17A(b)(3)(F) of the Act.[21]

Rule 17Ad-22(e)(4)(i) under the Act[22] requires 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 help 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 Bond Haircuts to apply a risk factor based on multiple benchmark indices for lower rated or non-rated municipal bonds rather than a straight risk factor by sector would help allow NSCC to more accurately identify the credit exposure relating to Net Unsettled Positions in municipal bonds for purposes of applying an appropriate margin charge and to help provide NSCC with a more effective measure of the risks that may be presented to NSCC by positions in the securities. The proposed changes to (i) re-calibrate the Bond Haircut no less frequently than annually, (ii) calibrate the percent to a pre-determined percentile that would not be less than 99% level, and (iii) apply a pre-determined look-back period would enable NSCC to apply the proposed enhanced methodology discussed above and to better monitor its credit exposure relating to Net Unsettled Positions in municipal bonds. By providing that NSCC would be required to re-calibrate the Bond Haircut no less frequently than annually, the proposed rule change would help ensure that NSCC would periodically review the Bond Haircut to ensure that it continued to accurately reflect the risks presented by municipal bonds. Finally, by reserving the right to apply the highest group factor in extraordinary circumstances, NSCC would help protect itself in circumstances where the assigned factor does not adequately account for risks presented by extraordinary events, such as natural disasters.

Based on backtesting results in which the proposed methodology was applied, NSCC believes that the proposed changes would help allow it to collect Required Fund Deposits that are more accurate to offset the risks presented by municipal bonds and provide a better method

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21 Id.

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

of managing risks presented by those securities. Therefore, NSCC believes that the proposed changes would help enhance NSCC's ability to effectively identify, measure, monitor and manage its credit exposures and would help 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.[23]

Rule 17Ad-22(e)(6)(i) under the Act[24] requires 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 Deposit is 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 municipal bonds by capturing risks more accurately by applying multiple indices. Rather than multiply the tenor-based haircut for lower rated bonds by a straight risk factor for each municipal sector, the Bond Haircut for lower rated or non-rated municipal bonds would be determined by using the maximum percent derived from either the tenor-based index, the municipal bond sector-based indices or a high yield index. Based on backtesting results, NSCC believes that deriving the percent using a maximum of the indices more accurately captures the risk of such municipal bonds that may be presented by tenor, sector and the higher yield of these securities compared to the present use of a straight sector-based risk factor. Based on such results, NSCC believes that these changes would help enable NSCC to produce margin levels that are more commensurate with the particular risk attributes 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 relating to municipal bonds, including risks and attributes related to tenor, municipal sector and higher yields. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(i) under the Act.[25]

Rule 17Ad-22(e)(6)(v) under the Act[26] requires 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 enhance the Bond Haircut because NSCC believes that the proposed methodology would help provide NSCC with a more

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[23] Id.

[24] 17 CFR 240.17Ad-22(e)(6)(i).

[25] Id.

[26] 17 CFR 240.17Ad-22(e)(6)(v).

effective measure of the credit exposure presented by municipal bonds. In particular, as described above, NSCC believes that the enhancements would result in a more effective measure of the tenor, sector and higher yield risks presented by municipal bonds that are rated BBB+ or lower, or are not rated. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(v) under the Act.[27]

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

NSCC does not believe that the proposed changes to the Bond Haircut would have an adverse impact, or impose any burden, on competition. Based on impact studies, NSCC believes that the proposed changes to the Bond Haircut would result in a reduction in the Required Fund Deposit with respect to every Member with Net Unsettled Positions in municipal bonds. NSCC believes that this impact would promote competition for Members that have Net Unsettled Positions in municipal bonds by reducing the amount of the Required Fund Deposit for such Members while continuing to appropriately limit NSCC's exposure to Members in the event of a Member default. In addition, NSCC does not believe that the proposed rule changes would disproportionally impact any Members.

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

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

6. Extension of Time Period for Commission Action

NSCC does not consent to an extension of the time period specified in Section 19(b)(2) of the Act for Commission action.

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

(a) Not applicable.

(b) Not applicable.

(c) Not applicable.

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

Not applicable.

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27 17 CFR 240.17Ad-22(e)(6)(v).

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

Not applicable.

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

Not applicable.

11. Exhibits

Exhibit 1 – Not applicable.

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

Exhibit 2 – Not applicable.

Exhibit 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-2019-004)

[DATE]

Self-Regulatory Organizations; National Securities Clearing Corporation; Notice of Filing of Proposed Rule Change to Enhance National Securities Clearing Corporation's Haircut-Based Volatility Charge Applicable to Municipal Bonds

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")[1] and Rule 19b-4 thereunder,[2] notice is hereby given that on December __, 2019, National Securities Clearing Corporation ("NSCC") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II and III below, which Items have been prepared by the clearing agency.[3] The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Clearing Agency's Statement of the Terms of Substance of the Proposed Rule Change

The proposed rule change consists of amendments to NSCC's Rules & Procedures ("Rules")[4] in order to enhance NSCC's haircut-based volatility charge

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1 15 U.S.C. 78s(b)(1).

2 17 CFR 240.19b-4.

3 On December__, 2019, NSCC filed this proposed rule change as an advance notice (SR-NSCC-2019-801) with the Commission pursuant to Section 806(e)(1) of Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010, 12 U.S.C. 5465(e)(1), and Rule 19b-4(n)(1)(i) under the Act, 17 CFR 240.19b-4(n)(1)(i). A copy of the advance notice is available at http://www.dtcc.com/legal/sec-rule-filings.aspx.

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

applicable to municipal bonds (the "Bond Haircut"). References to the Bond Haircut in this document refer only to that charge as applied to municipal bonds. The proposed changes are described in greater detail below.

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

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

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

1. Purpose

NSCC is proposing a number of enhancements to NSCC's Bond Haircut, as described in greater detail below.

The Required Fund Deposit and the Bond Haircut

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

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

Fund Deposit is to mitigate 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").[6] The aggregate of all Members' Required Fund Deposits, together with certain other deposits required under the Rules, constitute the Clearing Fund of NSCC, which it would access 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.[7] 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,[8] NSCC calculates the volatility component as the

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

7 Procedure XV, supra note 4.

8 "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.

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 largest non-index position in a portfolio that exceeds a concentration threshold, 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 positions in certain classes of securities, including municipal bonds, 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 such positions by a percentage designated by NSCC which shall not be less than 2%.[10]

Existing Municipal Bond Haircut Methodology

The existing methodology for calculating the Bond Haircut is described in Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV.[11] In order to determine the current Bond Haircut, municipal bonds are categorized into tenor-based groups (i.e., based on remaining time to maturity) and separately categorized by municipal sector. Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV provide that NSCC shall establish a percentage applicable to each tenor-based group and pursuant to those sections NSCC has established a percentage (which is not less than 2%) for each tenor-based group which is used to calculate the haircut-based charge applicable to that group.[12] For municipal bonds rated higher than BBB+, NSCC has established a tenor-based haircut for each tenor-based group. For example, a municipal bond rated above BBB+ with 3 years to maturity and $10MM short position, will be subject to the 2-

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

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

5 years tenor-based group haircut (5%) which will be applied to the absolute market value of the positions resulting in $500K haircut-based charge.

Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV provide that NSCC shall assign each municipal sector a risk factor.[13] For municipal bonds rated lower than a pre-determined threshold, which shall be no lower than BBB+, and non-rated municipal bonds, NSCC has established a percentage based on a sector-based risk factor which is also applied to the tenor-based haircut. For example, a municipal bond in the healthcare sector, rated BBB+ or lower with 3 years to maturity and $10MM short position, will be subject to the 2-5 years tenor-based group haircut (5%) multiplied by the sector-based factor (1.2), resulting in 6% haircut-based charge of $600K. This additional sector-based risk factor is added because variable risk factors exist between municipal sectors based on the various industries in which the bonds are issued and the source of repayment for the bonds. For instance, general obligation bonds are typically backed by the taxing power of their issuer and repaid from general taxes whereas transportation or healthcare-related bonds may be repaid from funds from a specific project based on the revenues of the project. Such risk factor is based on the sector index's spread to a benchmark index.[14] NSCC uses a vendor to match bonds to particular sectors. If a municipal bond does not fit within any particular sector, the highest sector-based risk

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11 Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV, supra note 4.

12 Id.

13 Id.

14 The "spread" is the difference in the yield curve of the sector index to the yield curve of a benchmark index which is indicative of the added risk presented by the sector.

factor is applied to such municipal bond. Currently, the highest sector-based risk factor is 2.6 used for bonds in the housing sector.

Enhancements to Municipal Bond Haircut Methodology

NSCC regularly assesses its market and liquidity 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. In connection with such regular reviews, NSCC has determined based on impact studies that, under current market conditions, the current margin levels with respect to municipal bonds using the current methodology exceed the levels necessary to offset the risks with respect to these securities. Based on impact studies, NSCC has determined that changes to its current methodology for municipal bonds would result in margin levels that are lower and more commensurate with the risk attributes of those securities. In particular, as described below, NSCC is proposing to replace the municipal sector-based risk factor for lower rated municipal bonds with a percentage derived using the historical returns of applicable benchmark indices.

NSCC is proposing the following enhancements to the methodology used for calculating the Bond Haircut.

First, NSCC is proposing to re-calibrate the Bond Haircut not less frequently than annually. Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV currently provide that each municipal sector is assigned a risk factor no less frequently than annually.[15] As discussed above and below, the enhanced methodology for calculating

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[15] Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV, supra note 4.

Bond Haircuts would no longer include the straight risk factor by sector. The re-calibration of the Bond Haircut not less frequently than annually would replace the assignment of a straight risk factor no less frequently than annually. NSCC believes that the periodic re-calibration would help ensure that NSCC is reviewing the Bond Haircut with enough regularity to ensure that the margin levels are commensurate with the particular risk attributes of municipal bonds.

While the proposed rule change would provide that NSCC would re-calibrate not less frequently than annually, NSCC would initially re-calibrate the Bond Haircut on a quarterly basis. NSCC could change how often it recalibrates from time to time based on its regular review of margining methodologies; provided, that it would recalibrate not less frequently than annually pursuant to the proposed rule change. Changes to the frequency of calibration would be subject to NSCC's risk management practices which would require, among other things, approval by the DTCC Model Risk Governance Committee ("MRGC").[16]

Second, municipal bonds would be grouped into tenor-based groups and by credit rating, and municipal bonds that are rated BBB+ or lower, or that are not rated, would

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16 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 Clearing Agency Model Risk Management Framework ("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 the Bond Haircut. Id.

also be separately categorized by municipal sector. NSCC would then establish a percentage haircut for each group based on the (1) the historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; (2) a pre-determined look-back period, which shall not be shorter than 10 years; and (3) a pre-determined calibration percentile, which shall not be less than 99%.

For municipal bonds that are rated higher than BBB+, NSCC is proposing to use a tenor-based index (i.e., based on time to maturity) as the applicable benchmark index. While the proposed rule change would provide that NSCC would base such percentage for bonds that are rated higher than BBB+ on historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; NSCC would initially base the percentage derived from a benchmark municipal tenor-based index over a 3-day price return from the index. NSCC could change which applicable benchmark indices it uses and the applicable period for the price return used in the calculation from time to time based on its regular review of margining methodologies. Changes to the frequency of calibration would be subject to NSCC's risk management practices which would require, among other things, approval by the MRGC.[17]

For municipal bonds that are rated BBB+ or lower, or are not rated, NSCC is proposing to use a percentage derived from the maximum of the applicable tenor-based index, municipal bond sector-based indices and a high-yield index. Rather than multiply

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[17] See note 16.

the tenor-based haircut by a straight risk factor for each municipal sector, as is done under the current methodology, the Bond Haircut for these lower rated or non-rated municipal bonds would be determined by using the maximum percent derived from either the applicable tenor-based index, the municipal bond sector-based indices or a high yield index. The enhancement would account for risks represented by the tenor, sector and high-yield characteristics that may be presented by these municipal bonds by using the maximum percent that is derived from either a tenor-based index, sector-based indices or a high yield index, rather than addressing these risks by multiplying the percent derived from a tenor-based index by a straight sector-based risk factor. Based on analysis of the impact studies, NSCC believes that the use of a risk factor based on the tenor-based index, municipal bond sector-based indices and a high-yield index would result in lower margins with respect to these securities that are sufficient to offset the risks with respect to these securities

While the proposed rule change would provide that NSCC would base such percentage on historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; NSCC would initially base the percentage derived from a tenor-based index, municipal bond sector-based indices and a high-yield index over a 3-day price return from the indices. NSCC could change which applicable benchmark indices it uses and the applicable period for the price return used in the calculation from time to time based on its regular review of margining methodologies in accordance with its risk management practices which would require, among other things, approval by the MRGC.[18]

In extraordinary circumstances, a certain municipality or issuer may present unique risks beyond the calibrated tenor, sector and high-yield factors. For example, the market price risk for issues of a municipality facing technical default following a natural disaster may not be fully captured due to the liquidity profile of municipal securities. Therefore, NSCC would reserve the right to apply the highest haircut of all municipal bonds to a specific issuer in such instances. NSCC would apply the highest haircut in accordance with its risk management practices, including approval by an officer of NSCC in the risk management department, following a review of the circumstances facing the municipality and a finding that the market price movement raises risks that are not accounted for by the Bond Haircut methodology.

Finally, the recalibration of the Bond Haircut would apply a pre-determined look-back period. NSCC would initially apply a look-back period of a 10-year rolling window plus a one calendar year "worst case scenario" stress period. NSCC believes this look-back period is appropriate because it would capture relevant data and is adequate to cover enough market activity, while not diluting the "tail" with an abundance of data.[19]

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18 See note 16.

19 NSCC believes that a 10-year window with a one-year stress period is typically long enough to capture at least two recent market cycles. NSCC believes that data over a longer period will "flatten" out the results because recent volatile periods will be offset by non-volatile periods, making the more recent volatility appear less significant.

While the proposed rule change would provide that NSCC would apply a pre-determined look-back period, which shall not be shorter than 10 years, NSCC would initially apply a look-back period of a 10-year rolling window plus a one calendar year "worst case scenario" stress period. NSCC could change the look-back period from time to time based on its regular review of margining methodologies in accordance with its risk management practices which would require, among other things, approval by the MRGC.[20]

Proposed Rule Changes to Procedure XV

In order to implement the proposed enhancements to the Bond Haircut methodology described above, Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV would be revised to provide that: (i) municipal bonds would be grouped by both "remaining time to maturity" and credit rating, and municipal bonds that are BBB+ or lower, or that are not rated, would be separately categorized by municipal sector, (ii) NSCC would establish the Bond Haircut percentages no less frequently than annually, (iii) the Bond Haircut percentage to be applied to municipal bonds would apply to each grouping of municipal bonds and (iv) the Bond Haircut percentage to be applied to municipal bonds would be based on (1) the historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; (2) a pre-determined look-back period; and (3) a pre-determined calibration percentile, which shall not be less than 99%. In addition, Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV would be revised to

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[20] See note 16.

remove the references to the municipal sector factor and the current application of the municipal sector factor in the last four sentences in Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV. A sentence would also be added to Sections I(A)(1)(a)(iii)(B) and I(A)(2)(a)(iii)(B) of Procedure XV to provide that in extraordinary circumstances where NSCC determines that a certain municipality or issuer of municipal bonds presents unique risks that are not captured by the grouping set forth in those subsections, NSCC may, in its discretion, apply the highest percentage being applied to any municipal bond group pursuant to those subsections to municipal bonds issued by such municipality or issuer.

2. Statutory Basis

NSCC believes that the proposed changes described above are consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. In particular, NSCC believes that the proposed changes are consistent with Section 17A(b)(3)(F) of the Act,[21] and Rules 17Ad-22(e)(4)(i), (e)(6)(i) and (e)(6)(v), each promulgated under the Act,[22] for the reasons described below.

Section 17A(b)(3)(F) of the Act[23] requires that the Rules be designed to, among other things, assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible. NSCC believes the proposed changes are designed to assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible because they are designed to enable

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21 15 U.S.C. 78q-1(b)(3)(F).

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

23 15 U.S.C. 78q-1(b)(3)(F).

NSCC to more accurately calculate the necessary margin relating to Net Unsettled Positions in municipal bonds while continuing to limit its exposure to Members in the event of a Member default.

NSCC believes that the proposed changes to (i) re-calibrate the Bond Haircut no less frequently than annually, (ii) apply a risk factor based on multiple benchmark indices for lower rated or non-rated municipal bonds rather than a straight sector-based risk factor, (iii) calibrate the percent to a pre-determined percentile that would not be less than 99% level and (iv) apply a pre-determined look-back period, would help ensure that the margin levels with respect to municipal bonds would be commensurate with the particular risk attributes of municipal bonds. Backtesting results conducted by NSCC have shown that the current methodology for calculating the Bond Haircut, using a straight municipal sector factor by sector, at times, results in coverage of 100%. NSCC has determined based on impact studies that, under current market conditions, the current margin levels with respect to municipal bonds using the current methodology exceed the levels necessary to offset the risks with respect to these securities. Backtesting results conducted by NSCC indicated that using the highest percentage from applicable benchmark indices in the enhanced methodology rather than the straight municipal sector factor as in the current methodology would result in the desired margin coverages to offset risk while reducing the average Required Fund Deposit for Members. In addition, by reserving the right to apply the highest risk factor in certain circumstances, NSCC would be protected from extraordinary circumstances where NSCC determines that the percentage to be applied to a particular grouping of municipal bonds does not fully capture the risks represented by that municipality or issuer. In this way, the haircut-based volatility charge for Net Unsettled Positions in municipal bonds would be calculated to help enable NSCC to collect margin at levels that better reflect the risk presented by these Net Unsettled Positions to help NSCC limit its exposure to Members.

The Clearing Fund is composed of Members' Required Fund Deposits that include the volatility component and is a key tool that NSCC uses to mitigate potential losses to NSCC associated with liquidating a Member's portfolio in the event of Member default. Therefore, NSCC believes that each of the proposed changes listed above would help enable NSCC to more accurately calculate the necessary margin relating to Net Unsettled Positions in municipal bonds while continuing to limit its exposure to Members such that, in the event of Member default, NSCC's operations would not be disrupted and non-defaulting Members would not be exposed to losses they cannot anticipate or control. In this way, the proposed rules are designed to assure the safeguarding of securities and funds which are in the custody or control of NSCC or for which it is responsible and therefore consistent with Section 17A(b)(3)(F) of the Act.[24]

Rule 17Ad-22(e)(4)(i) under the Act[25] requires 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 help enable

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[24] Id.

[25] 17 CFR 240.17Ad-22(e)(4)(i).

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 Bond Haircuts to apply a risk factor based on multiple benchmark indices for lower rated or non-rated municipal bonds rather than a straight risk factor by sector would help allow NSCC to more accurately identify the credit exposure relating to Net Unsettled Positions in municipal bonds for purposes of applying an appropriate margin charge and to help provide NSCC with a more effective measure of the risks that may be presented to NSCC by positions in the securities. The proposed changes to (i) re-calibrate the Bond Haircut no less frequently than annually, (ii) calibrate the percent to a pre-determined percentile that would not be less than 99% level, and (iii) apply a pre-determined look-back period would enable NSCC to apply the proposed enhanced methodology discussed above and to better monitor its credit exposure relating to Net Unsettled Positions in municipal bonds. By providing that NSCC would be required to re-calibrate the Bond Haircut no less frequently than annually, the proposed rule change would help ensure that NSCC would periodically review the Bond Haircut to ensure that it continued to accurately reflect the risks presented by municipal bonds. Finally, by reserving the right to apply the highest group factor in extraordinary circumstances, NSCC would help protect itself in circumstances where the assigned factor does not adequately account for risks presented by extraordinary events, such as natural disasters.

Based on backtesting results in which the proposed methodology was applied, NSCC believes that the proposed changes would help allow it to collect Required Fund

Deposits that are more accurate to offset the risks presented by municipal bonds and provide a better method of managing risks presented by those securities. Therefore, NSCC believes that the proposed changes would help enhance NSCC's ability to effectively identify, measure, monitor and manage its credit exposures and would help 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.[26]

Rule 17Ad-22(e)(6)(i) under the Act[27] requires 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 Deposit is 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 municipal bonds by capturing risks more accurately by applying multiple indices. Rather than multiply the tenor-based haircut for lower rated bonds by a straight risk factor for each municipal sector, the Bond Haircut for lower rated or non-rated municipal bonds would be determined by using the maximum percent derived from either the tenor-based index, the municipal bond sector-based indices or a high yield index. Based on backtesting results, NSCC believes that deriving the percent

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26 Id.

27 17 CFR 240.17Ad-22(e)(6)(i).

using a maximum of the indices more accurately captures the risk of such municipal bonds that may be presented by tenor, sector and the higher yield of these securities compared to the present use of a straight sector-based risk factor. Based on such results, NSCC believes that these changes would help enable NSCC to produce margin levels that are more commensurate with the particular risk attributes 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 relating to municipal bonds, including risks and attributes related to tenor, municipal sector and higher yields. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(i) under the Act.[28]

Rule 17Ad-22(e)(6)(v) under the Act[29] requires 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 enhance the Bond Haircut because NSCC believes that the proposed methodology would help provide NSCC with a more effective measure of the credit exposure presented by municipal bonds. In particular, as described above, NSCC believes that the enhancements would result in a more effective measure of the tenor, sector and higher yield risks presented by municipal bonds that are rated BBB+ or lower, or are not rated. Therefore, NSCC believes the proposed change is consistent with Rule 17Ad-22(e)(6)(v)

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28 Id.

29 17 CFR 240.17Ad-22(e)(6)(v).

under the Act.[30]

(B) Clearing Agency's Statement on Burden on Competition

NSCC does not believe that the proposed changes to the Bond Haircut would have an adverse impact, or impose any burden, on competition. Based on impact studies, NSCC believes that the proposed changes to the Bond Haircut would result in a reduction in the Required Fund Deposit with respect to every Member with Net Unsettled Positions in municipal bonds. NSCC believes that this impact would promote competition for Members that have Net Unsettled Positions in municipal bonds by reducing the amount of the Required Fund Deposit for such Members while continuing to appropriately limit NSCC's exposure to Members in the event of a Member default. In addition, NSCC does not believe that the proposed rule changes would disproportionally impact any Members.

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

NSCC has not received or solicited any written comments relating to this proposal. NSCC will notify the Commission of any written comments received by NSCC.

III. Date of Effectiveness of the Proposed Rule Change, and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

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30 17 CFR 240.17Ad-22(e)(6)(v).

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

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

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

IV. Solicitation of Comments

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

Electronic Comments:

- Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-NSCC-2019-004 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-2019-004. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (http://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of NSCC and on DTCC's website (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-2019-004 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[31]

Secretary

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[31] 17 CFR 200.30-3(a)(12).

EXHIBIT 3

PAGE REDACTED IN ITS ENTIRETY

EXHIBIT 5

NATIONAL
SECURITIES
CLEARING
CORPORATION

RULES & PROCEDURES

TEXT OF PROPOSED RULE CHANGE

Bold and underlined text indicates proposed added language.

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

PROCEDURE XV. CLEARING FUND FORMULA AND OTHER MATTERS[1]

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:

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(iii) The Corporation shall exclude from the calculations in subsection (i) 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:

(A) Corporate bonds shall be categorized into groups according to the bonds' "remaining time to maturity" and credit rating. From time to time, but not less frequently than annually, the Corporation shall establish for each category of corporate bonds a percentage calculated using historical market price volatility of a benchmark index. Such percentage shall be based on (1) the historical returns of the applicable benchmark index; (2) a pre-determined look-back period, which shall not be shorter than 10 years; and (3) a pre-determined calibration percentile, which shall not be less than 99%.

(B) Municipal bonds shall be grouped by "remaining time to maturity" and **credit rating, and municipal bonds that are rated BBB+ or lower, or that are not rated, shall also be** separately categorized by municipal sector. **From time to time, but not less frequently than annually,** ~~T~~**t**he Corporation shall establish a percentage applicable to each ~~**"remaining time to maturity"**~~ grouping. **Such percentage shall be based on (1) the historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-yield indices; (2) a pre-determined look-back period, which shall not be shorter than 10 years; and (3) a pre-determined calibration percentile, which shall not be less than 99%**~~**From time to time, but not less frequently than annually, the Corporation shall assign**~~

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

~~**each municipal sector a risk factor. If a municipal bond is rated lower than a pre-determined threshold, which shall be no lower than BBB+, or is non-rated, then the Corporation shall apply a risk factor to the applicable percentage. Such risk factor shall be based on the sector index's spread to a benchmark index. The highest sector-based risk factor shall apply to municipal bonds that are not mapped to a municipal sector**~~. **In extraordinary circumstances where the Corporation determines that a certain municipality or issuer of municipal bonds presents unique risks that are not captured by the grouping set forth herein, NSCC may, in its discretion, apply the highest percentage being applied to any municipal bond group pursuant to this subsection (B) to municipal bonds issued by such municipality or issuer.**

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(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:

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(iii) The Corporation shall exclude from the calculations in subsection (i) 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:

(A) Corporate bonds shall be categorized into groups according to the bonds' "remaining time to maturity" and credit rating. From time to time, but not less frequently than annually, the Corporation shall establish for each category of corporate bonds a percentage calculated using historical market price volatility of a benchmark index. Such percentage shall be based on (1) the historical returns of the applicable benchmark index; (2) a pre-determined look-back period, which shall not be shorter than 10 years; and (3) a pre-determined calibration percentile, which shall not be less than 99%.

(B) Municipal bonds shall be grouped by "remaining time to maturity" and **credit rating, and municipal bonds that are rated BBB+ or lower, or that are not rated, shall be** separately categorized by municipal sector. **From time to time, but not less frequently than annually,** ~~T~~the Corporation shall establish a percentage applicable to each ~~**"remaining time to maturity"**~~ grouping. **Such percentage shall be based on (1) the historical returns of applicable benchmark indices, such as tenor-based indices (i.e., based on time to maturity), municipal bond sector-based indices, and high-**

yield indices; (2) a pre-determined look-back period, which shall not be shorter than 10 years; and (3) a pre-determined calibration percentile, which shall not be less than 99%~~From time to time, but not less frequently than annually, the Corporation shall assign each municipal sector a risk factor. If a municipal bond is rated lower than a pre-determined threshold, which shall be no lower than BBB+, or is non-rated, then the Corporation shall apply a risk factor to the applicable percentage. Such risk factor shall be based on the sector index's spread to a benchmark index. The highest sector-based risk factor shall apply to municipal bonds that are not mapped to a municipal sector~~. In extraordinary circumstances where the Corporation determines that a certain municipality or issuer of municipal bonds presents unique risks that are not captured by the grouping set forth herein, NSCC may, in its discretion, apply the highest percentage being applied to any municipal bond group pursuant to this subsection (B) to municipal bonds issued by such municipality or issuer.

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