8011-01

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-88191; File No. SR-NSCC-2019-004]

Self-Regulatory Organizations; National Securities Clearing Corporation; Order Approving a Proposed Rule Change to Enhance National Securities Clearing Corporation's Haircut-Based Volatility Charge Applicable to Municipal Bonds

February 13, 2020

On December 13, 2019, National Securities Clearing Corporation ("NSCC") filed with the Securities and Exchange Commission ("Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")[1] and Rule 19b-4 thereunder,[2] proposed rule change SR-NSCC-2019-004 to revise NSCC's methodology for calculating margin amounts applicable to municipal bonds.[3] The proposed rule change was published for comment in the *Federal Register* on January 2, 2020,[4] and the Commission

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

2 17 CFR 240.19b-4.

3 NSCC also filed the proposals contained in the proposed rule change as advance notice SR-NSCC-2019-801 with the Commission pursuant to Section 806(e)(1) of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010 ("Clearing Supervision Act"), 12 U.S.C. 5465(e)(1), and Rule 19b-4(n)(1)(i) of the Act, 17 CFR 240.19b-4(n)(1)(i). Notice of Filing of the Advance Notice was published for comment in the *Federal Register* on January 14, 2020. Securities Exchange Act Release No. 87911 (January 8, 2020), 85 Fed. Reg. 2197 (January 14, 2020) (File No. SR-NSCC-2019-801).

4 Securities Exchange Act Release No. 87858 (December 26, 2019), 85 Fed. Reg. 149 (January 2, 2020) ("Notice of Filing").

received no comment letters regarding the changes proposed in the proposed rule change.[5] For the reasons discussed below, the Commission is approving the proposed rule change.

I. DESCRIPTION OF THE PROPOSED RULE CHANGE

The proposed rule change would revise NSCC's Rules and Procedures ("Rules")[6] to change the methodology NSCC uses for calculating the haircut-based margin charge applicable to municipal bonds.

A. Background

NSCC provides clearing, settlement, risk management, central counterparty services, and a guarantee of completion for virtually all broker-to-broker trades involving equity securities, corporate and municipal debt securities, and certain other securities. NSCC manages its credit exposure to its members by determining an appropriate Required Fund Deposit (i.e., margin) for each member.[7] NSCC collects each member's Required Fund Deposit to mitigate potential losses to NSCC associated with the liquidation of the member's portfolio in the event of the member's default.[8] The

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5 As the proposals contained in the proposed rule change were also filed as an advance notice, all public comments received on the proposals are considered regardless of whether the comments are submitted on the proposed rule change or the advance notice.

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

7 See Rule 4 (Clearing Fund) and Procedure XV (Clearing Fund Formula and Other Matters) of the Rules ("Procedure XV"), supra note 6.

8 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

aggregate of all NSCC members' Required Fund Deposits (together with certain other deposits required under the Rules) constitutes NSCC's Clearing Fund, which NSCC would access should a defaulting member's own Required Fund Deposit be insufficient to satisfy losses to NSCC caused by the liquidation of the defaulting member's portfolio.[9]

Each member's Required Fund Deposit consists of a number of applicable components, which are calculated to address specific risks that the member's portfolio presents to NSCC.[10] Generally, the largest component of a member's Required Fund Deposit is the volatility component.[11] The volatility component is designed to calculate the potential losses on a portfolio over a given period of time assumed necessary to liquidate the portfolio, within a 99% confidence level.

The methodology for calculating the volatility component of the Required Fund Deposit depends on the type of security.[12] Specifically, for certain securities, including

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event that member defaults on a financial or other obligation to NSCC. See Rule 46 (Restrictions on Access to Services), supra note 6.

9 See id.

10 Procedure XV, supra note 6.

11 See id.

12 For most securities (e.g., equity securities), 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, which addresses concentration risk that can be present in a member's portfolio, and (3) a portfolio margin floor calculation based on the market values of the long and short positions in the portfolio, which addresses risks that might not be adequately addressed with the other volatility component calculations. See id.; see also Securities Exchange Act Release No. 82780 (February 26, 2018), 83 Fed. Reg. 9035 (March 2, 2018) (File No. SR-NSCC-2017-808); Securities Exchange Act Release No. 82781 (February 26, 2018), 83 Fed. Reg. 9042 (March 2, 2018) (File No. SR-NSCC-2017-020).

municipal bonds, NSCC calculates a haircut-based volatility component by multiplying the absolute value of a member's positions in such securities by a certain percentage designated by NSCC.[13]

NSCC's current methodology for designating the percentages used in calculating the haircut-based volatility component for municipal bonds involves distinguishing between municipal bonds based on tenor (i.e., remaining time to maturity), municipal sector (e.g., general obligation, transportation, healthcare, etc.), and credit rating.[14] Pursuant to that methodology, NSCC assigns each tenor-based group a percentage.[15] For municipal bonds rated higher than BBB+, the tenor-based percentage is the percentage NSCC uses to calculate the haircut-based volatility component.[16] However, for municipal bonds rated BBB+ or lower, NSCC multiplies the tenor-based percentage by a sector-based risk factor, resulting in a larger percentage for the haircut.[17] The additional sector-based risk factors account for the variable risks between municipal sectors

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[13] Procedure XV, supra note 6.

[14] Id.

[15] Id.

[16] Id. For example, a $10MM short position in a municipal bond rated above BBB+ with 3 years to maturity is subject to the 2-5 years tenor-based group haircut of 5%, which applies to the absolute market value of the positions, resulting in a haircut-based volatility component of $500,000. Notice of Filing, supra note 4 at 150.

[17] Procedure XV, supra note 6. For example, a $10MM short position in a healthcare sector municipal bond rated BBB+ or lower with 3 years to maturity is subject to the 2-5 years tenor-based group haircut (5%) multiplied by the sector-based factor of 1.2, resulting in a 6% haircut-based volatility component of $600,000. Notice of Filing, supra note 4 at 151.

associated with the various industries in which the bonds are issued and the sources of bond repayment.[18]

In all cases, the percentage used to calculate the municipal bond haircut-based volatility component is not less than 2%, regardless of a municipal bond's credit rating.[19]

B. Changes to NSCC's Methodology for Calculating Municipal Bond Haircut Percentages

NSCC states that it regularly assesses its margining methodologies to evaluate whether margin levels are commensurate with the particular risk attributes of the various products, portfolios, and markets that NSCC serves.[20] NSCC further states that based on recent impact studies, the margin levels generated from municipal bonds using the current methodology exceed the levels necessary to mitigate the risk associated with those securities.[21] In the proposed rule change, NSCC seeks to change the methodology for calculating the municipal bond haircut-based volatility component so that the amount of margin NSCC collects is more commensurate with the risk attributes of those securities.

As proposed, NSCC would retain the current provision that in all cases the percentage used to calculate the municipal bond haircut-based volatility component is not less than 2%, regardless of a municipal bond's credit rating. NSCC would also continue

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18 Notice of Filing, supra note 4 at 151.

19 Procedure XV, supra note 6.

20 Notice of Filing, supra note 4 at 151.

21 Notice of Filing, supra note 4 at 151-52. As part of the proposed rule change, NSCC filed Exhibit 3 – NSCC Impact Studies, comparing the current and proposed methodologies. Pursuant to 17 CFR 240.24b-2, NSCC requested confidential treatment of Exhibit 3.

to distinguish between municipal bonds based on tenor, credit rating, and municipal sector. However, NSCC would calculate the haircut percentages for various groups of municipal bonds based on the historical returns of one or more benchmark indices over a look-back period not shorter than 10 years, using a minimum 99% calibration percentile.

The proposal would change the manner in which NSCC addresses the risk presented by lower-rated municipal bonds. Instead of the current methodology's approach which applies a sector-based straight risk factor to the tenor-based haircut resulting in a larger haircut percentage, the proposed approach would allow the calculation to be more precisely tailored to the risks presented by particular municipal bonds. Specifically, the new approach would base the haircut percentage on the historical returns of one or more benchmark indices, such as tenor-based indices, municipal bond sector-based indices, and high-yield indices, over a look-back period of at least ten years, and would no longer use a sector-based straight risk factor for lower-rated municipal bonds. This approach should allow NSCC to more accurately calculate margin amounts appropriate for the risks presented by such municipal bonds by allowing NSCC to take into account a broader range of risk characteristics associated with municipal bonds. NSCC notes that, based on recent impact studies comparing the current and proposed methodologies, the proposed methodology would manage NSCC's applicable risks well above the 99% confidence level, although it would generate lower overall margin amounts.[22]

NSCC states that for municipal bonds rated higher than BBB+, NSCC would use the percentage derived from a tenor-based index as the haircut for the purpose of

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22 Id.

calculating the volatility component.[23] For municipal bonds rated BBB+ or lower (or not rated), NSCC states that it would use a percentage that is the highest of: (1) the applicable tenor-based index, (2) municipal bond sector-based indices, and (3) a high-yield index.[24] For all municipal bonds, when deriving the haircut percentage from the applicable indices, NSCC would use a look-back period of a 10-year rolling window plus a 1-year "worst case scenario" stress period.[25] NSCC would identify the largest 3-day price return movement (reflected as a percentage) within the 99th percentile of all 3-day price return movements during the look-back period. Additionally, NSCC proposes to re-calibrate the municipal bond haircut percentages no less frequently than annually.

As proposed, NSCC would have the ability to modify certain aspects of the application of the proposed methodology consistent with NSCC's relevant governance procedures and based on NSCC's determination that such modifications are necessary to manage the applicable risks above the 99% confidence level. Specifically, based on NSCC's regular review of its margin methodologies, NSCC would be able to modify: the frequency of re-calibrating the municipal bond haircut percentages; which benchmark indices to use; the applicable period for the price return used in the calculations; and the look-back period. NSCC states that any such modifications would be subject to the

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23 Notice of Filing, supra note 4 at 151.

24 Id.

25 NSCC believes that a 10-year window plus 1-year stress period would capture relevant data and cover sufficient market data without diluting the "tail" with an abundance of data. NSCC believes this look-back period is typically long enough to capture at least two recent market cycles, whereas a longer look-back period might "flatten" out the results because recent volatile periods might be offset by non-volatile periods, making the more recent volatility appear less significant. Notice of Filing, supra note 4 at 152.

governance procedures applicable to all of NSCC's margin methodologies, as set forth in NSCC's Clearing Agency Model Risk Management Framework, which the Commission has approved.[26]

Finally, NSCC proposes a method to address extraordinary circumstances in which a certain municipality or issuer may present unique risks not otherwise captured by the proposed methodology's use of a percentage derived from the maximum of the applicable tenor-based index, municipal bond sector-based indices, and high-yield indices.[27] In such scenarios, NSCC proposes to have the ability to use the highest percentage generated for any municipal bond group when calculating the haircut-based volatility component for municipal bonds issued by the municipality or issuer presenting such unique risks.

II. DISCUSSION AND COMMISSION FINDINGS

Section 19(b)(2)(C) of the Act[28] directs the Commission to approve a proposed rule change of a self-regulatory organization if it finds that such proposed rule change is consistent with the requirements of the Act and rules and regulations thereunder applicable to such organization. After carefully considering the proposed rule change, the Commission finds that the proposed rule change is consistent with the requirements

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26 Notice of Filing, supra note 4 at 151-52; See also Securities Exchange Act Release No. 81485 (August 25, 2017), 82 Fed. Reg. 41433 (August 31, 2017) (File No. SR-NSCC-2017-008); Securities Exchange Act Release No. 84458 (October 19, 2018), 83 Fed. Reg. 53925 (October 25, 2018) (File No. SR-NSCC-2018-009).

27 For example, the market price risk for issues of a municipality facing technical default following a natural disaster may not be fully captured by the proposed methodology due to the liquidity profile of municipal securities.

28 15 U.S.C. 78s(b)(2)(C).

of the Act and the rules and regulations thereunder applicable to NSCC. In particular, the Commission finds that the proposed rule change is consistent with Section 17A(b)(3)(F)[29] of the Act and Rules 17Ad-22(e)(4) and (e)(6) thereunder.[30]

A. Consistency with Section 17A(b)(3)(F)

Section 17A(b)(3)(F) of the Act requires, in part, that the rules of a clearing agency, such as NSCC, be designed to promote the prompt and accurate clearance and settlement of securities transactions and assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible.[31]

First, as described above in Section I.A., NSCC's current methodology calculates municipal bond haircut percentages using tenor-based percentages and sector-based risk factors. NSCC states that the current methodology generates margin amounts greater than necessary to mitigate NSCC's risks associated with municipal bonds.[32] NSCC proposes to replace the current methodology with one that would calculate the haircut percentages based on the historical returns of one or more benchmark indices over a look-back period of not shorter than 10 years, using a minimum 99% calibration percentile. These changes would result in margin amounts that are more commensurate with the risk attributes of municipal bonds. As noted above, while the proposed methodology would reduce margin requirements for members holding positions in municipal bonds, NSCC states that based on recent impact studies, the proposed methodology would fully manage

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[29] 15 U.S.C. 78q-1(b)(3)(F).

[30] 17 CFR 240.17Ad-22(e)(4) and (e)(6).

[31] 15 U.S.C. 78q-1(b)(3)(F).

[32] Notice of Filing, supra note 4 at 151-52.

NSCC's applicable risks well above the 99% confidence level.[33] NSCC's collection of margin amounts with respect to municipal bonds in a manner that fully manages NSCC's applicable credit exposures should help ensure that, in the event of a member default, NSCC's operations would not be disrupted and non-defaulting members would not be exposed to losses that they cannot anticipate or control. Accordingly, the Commission finds that NSCC's proposed methodology for calculating municipal bond haircut percentages would promote the prompt and accurate clearance and settlement of securities transactions, consistent with Section 17A(b)(3)(F) of the Act.[34] Moreover, NSCC's collection of margin amounts with respect to municipal bonds in a manner that fully manages NSCC's applicable credit exposures would help ensure that NSCC maintains adequate funds necessary to manage the risks associated with performing its clearance and settlement functions, which could, in turn, help reduce the amount of credit losses that would potentially be charged to the Clearing Fund contributions of non-defaulting members in the event of a default. Accordingly, the Commission finds that NSCC's proposed methodology for calculating municipal bond haircut percentages should safeguard the securities and funds that are in NSCC's custody or control or for which NSCC is responsible, consistent with Section 17A(b)(3)(F).[35]

Second, as described above in Section I.B., NSCC proposes to re-calibrate the municipal bond haircut percentages no less frequently than annually. Regular re-calibration of the municipal bond haircut percentages is necessary to ensure that the

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33 Notice of Filing, supra note 4 at 151-52, 154.

34 15 U.S.C. 78q-1(b)(3)(F).

35 Id.

relevant calculations and resulting margin levels take into account any changes over time to the risk attributes of municipal bonds. The proposal to re-calibrate the municipal bond haircut percentages no less frequently than annually would require NSCC to regularly review the municipal bond haircut percentages, thus helping to ensure that NSCC collects margin amounts commensurate with the particular risk attributes of municipal bonds. By enabling NSCC to continue to collect margin amounts sufficient to manage the risks associated with municipal bonds, NSCC's proposal to re-calibrate the municipal bond haircut percentages no less frequently than annually should help limit NSCC's applicable credit exposures such that, in the event of a default of a member with positions in municipal bonds, NSCC's operations would not be disrupted and non-defaulting members would not be exposed to losses that they cannot anticipate or control. Accordingly, the Commission believes that NSCC's proposal to re-calibrate the municipal bond haircut percentages no less frequently than annually would promote the prompt and accurate clearance and settlement of securities transactions, consistent with Section 17A(b)(3)(F).[36]

Third, as described above in Section I.B., a certain municipality or issuer may present unique risks to NSCC not otherwise captured by the proposed methodology's use of a percentage derived from the maximum of the applicable tenor-based index, municipal bond sector-based indices, and high-yield indices. In such scenarios, NSCC proposes to have the ability to use the highest percentage generated for any municipal bond group when calculating the haircut-based volatility component for municipal bonds issued by the municipality or issuer presenting such unique risks. By enabling NSCC to

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[36] Id.

increase margin requirements in such scenarios, the proposed rule change should help limit NSCC's exposure such that, in the event of a default of a member with positions in uniquely risky municipal bonds, NSCC's operations would not be disrupted and non-defaulting members would not be exposed to losses that they cannot anticipate or control. Accordingly, the Commission believes that NSCC's proposed discretion to increase margin requirements in scenarios where municipal bonds present unique risks should promote the prompt and accurate clearance and settlement of securities transactions, consistent with Section 17A(b)(3)(F).[37] Moreover, by enabling NSCC to increase margin requirements in scenarios where municipal bonds present unique risks, the proposed rule change would help ensure that NSCC maintains adequate funds necessary to manage the risks associated with performing its clearance and settlement functions, which could, in turn, help reduce the amount of credit losses that would potentially be charged to the Clearing Fund contributions of non-defaulting members in the event of a default. Accordingly, the Commission finds that NSCC's proposed discretion to increase margin requirements in scenarios where municipal bonds present unique risks should safeguard the securities and funds that are in NSCC's custody or control or for which NSCC is responsible, consistent with Section 17A(b)(3)(F) of the Act.[38]

B. Consistency with Rule 17Ad-22(e)(4)(i)

Rule 17Ad-22(e)(4)(i) 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

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37 Id.

38 Id.

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.[39]

As described above in Section I.B., NSCC proposes to replace the current methodology for calculating municipal bond haircut percentages with a methodology that would utilize the historical returns of one or more benchmark indices over a look-back period of not shorter than 10 years, using a minimum 99% calibration percentile. These changes would result in more precisely determined margin amounts, while still managing NSCC's applicable risks well above the 99% confidence level.[40] Accordingly, the Commission believes that the proposed methodology is consistent with Rule 17Ad-22(e)(4)(i) because it should enable NSCC to effectively identify, measure, monitor, and manage its credit exposures to members with positions in municipal bonds, including by maintaining sufficient financial resources to cover NSCC's credit exposure to such members fully with a high degree of confidence.[41]

As described above in Section I.B., NSCC proposes to re-calibrate the municipal bond haircut percentages no less frequently than annually. The proposal would require NSCC to regularly review the municipal bond haircut percentages, thereby helping to ensure that the haircut percentages and resulting margin levels take into account any changes over time to the risk attributes of municipal bonds. Accordingly, the

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

40 Notice of Filing, supra note 4 at 151-52.

41 17 CFR 240.17Ad-22(e)(4)(i).

Commission believes that the proposal to re-calibrate the municipal bond haircut percentages no less frequently than annually is consistent with Rule 17Ad-22(e)(4)(i) because it should allow NSCC to effectively identify, measure, monitor, and manage its credit exposures to members with positions in municipal bonds, including by maintaining sufficient financial resources to cover NSCC's credit exposure to such members fully with a high degree of confidence.[42]

As described above in Section I.B., NSCC proposes to have the ability to use the highest percentage generated for any municipal bond group when calculating the haircut-based volatility component for municipal bonds issued by a municipality or issuer presenting unique risks not otherwise captured by the calculations in the proposed methodology. Such discretion should help ensure that NSCC collects sufficient margin amounts with respect to those securities. Accordingly, the Commission believes that the proposed ability to apply the highest percentage to such municipal bonds is consistent with Rule 17Ad-22(e)(4)(i) because it should better enable NSCC to effectively identify, measure, monitor, and manage its credit exposures to members with positions in such municipal bonds, including by maintaining sufficient financial resources to cover NSCC's credit exposure to such members fully with a high degree of confidence.[43]

C. Consistency with Rules 17Ad-22(e)(6)(i) and (v)

Rule 17Ad-22(e)(6)(i) 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,

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42 Id.

43 Id.

considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market.[44] Rule 17Ad-22(e)(6)(v) 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.[45]

As described above in Section I.B., NSCC proposes to replace the current methodology for calculating municipal bond haircut percentages with a methodology that would utilize the historical returns of one or more benchmark indices over a look-back period of not shorter than 10 years, using a minimum 99% calibration percentile. NSCC designed the proposed methodology to generate margin amounts that are more commensurate with the risk attributes of municipal bonds than the current methodology. Accordingly, the Commission believes that the proposed methodology is consistent with Rules 17Ad-22(e)(6)(i) and (v) because it is designed to establish a risk-based margin system that (1) considers and produces relevant margin levels commensurate with the risks and particular attributes of municipal bonds, and (2) uses an appropriate method for measuring credit exposure that accounts for municipal bond risk factors and portfolio effects.[46]

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44 17 CFR 240.17Ad-22(e)(6)(i).

45 17 CFR 240.17Ad-22(e)(6)(v).

46 17 CFR 240.17Ad-22(e)(6)(i) and (v).

As described above in Section I.B., NSCC proposes to re-calibrate the municipal bond haircut percentages no less frequently than annually. The proposal would require NSCC to regularly review the municipal bond haircut percentages, thereby helping to ensure that the haircut percentages and resulting margin levels take into account any changes over time to the risk attributes of municipal bonds. Accordingly, the Commission believes that the proposal to re-calibrate the municipal bond haircut percentages no less frequently than annually is consistent with Rules 17Ad-22(e)(6)(i) and (v) because it would contribute to a risk-based margin system designed to (1) consider and produce relevant margin levels commensurate with the risks and particular attributes of municipal bonds, and (2) use an appropriate method for measuring credit exposure that accounts for municipal bond risk factors and portfolio effects.[47]

As described above in Section I.B., NSCC proposes to have the ability to use the highest percentage generated for any municipal bond group when calculating the haircut-based volatility component for municipal bonds issued by a municipality or issuer presenting unique risks not otherwise captured by the calculations in the proposed methodology. This discretion should help ensure that NSCC collects sufficient margin amounts with respect to those securities. Accordingly, the Commission believes that the proposed discretion to apply the highest percentage to such municipal bonds is consistent with Rules 17Ad-22(e)(6)(i) and (v) because it would contribute to a risk-based margin system designed to (1) consider and produce relevant margin levels commensurate with the risks and particular attributes of municipal bonds, and (2) use an appropriate method

47 Id.

for measuring credit exposure that accounts for municipal bond risk factors and portfolio effects.[48]

III. CONCLUSION

On the basis of the foregoing, the Commission finds that the proposed rule change is consistent with the requirements of the Act and in particular with the requirements of Section 17A of the Act[49] and the rules and regulations promulgated thereunder.

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Act[50] that proposed rule change SR-NSCC-2019-004, be, and hereby is, APPROVED.[51]

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[52]

Jill M. Peterson,

Assistant Secretary.

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48 Id.

49 15 U.S.C. 78q-1.

50 15 U.S.C. 78s(b)(2).

51 In approving the proposed rule change, the Commission considered the proposals' impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

52 17 CFR 200.30-3(a)(12).

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