

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-90502; File No. SR-NSCC-2020-003)

November 24, 2020

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 Illiquid Securities and UITs and Make Certain Other Changes to Procedure XV

On March 16, 2020, National Securities Clearing Corporation ("NSCC") filed with the Securities and Exchange Commission ("Commission") proposed rule change SR-NSCC-2020-003 ("Proposed Rule Change") pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")<sup>1</sup> and Rule 19b-4 thereunder.<sup>2</sup> The Proposed Rule Change was published for comment in the Federal Register on March 31, 2020.<sup>3</sup>

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> Securities Exchange Act Release No. 88474 (March 25, 2020), 85 Fed. Reg. 17910 (March 31, 2020) (SR-NSCC-2020-003) ("Notice"). NSCC also filed the proposal contained in the Proposed Rule Change as advance notice SR-FICC-2020-802 ("Advance Notice") 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); 17 CFR 240.19b-4(n)(1)(i). Notice of filing of the Advance Notice was published for comment in the Federal Register on April 15, 2020. Securities Exchange Act Release No. 88615 (April 9, 2020), 85 Fed. Reg. 21037 (April 15, 2020) (SR-NSCC-2020-802). On May 15, 2020, the Commission issued a request for information regarding the Advance Notice. See Commission's Request for Additional Information, available at <https://www.sec.gov/rules/sro/nsc-an/2020/34-88615-request-for-info.pdf>. On September 9, 2020, NSCC submitted its response thereto, which it then amended on October 16, 2020. See Response to Commission's Request for Additional Information, available at <https://www.sec.gov/rules/sro/nsc-an/2020/34-88615-response-to-request-for-info.pdf>; Letters from James Nygard, Director and Assistant General Counsel, NSCC (September 9 and October 16, 2020), available at <https://www.sec.gov/comments/sr-nsc-2020-802/srnsc2020802-7753722-223190.pdf> and <https://www.sec.gov/comments/sr-nsc-2020-802/srnsc2020802-7915013-224474.pdf>. On November 6, 2020, the Commission published a notice of no objection to the Advance Notice. Securities

The Commission received comment letters on the Proposed Rule Change.<sup>4</sup> On May 15, 2020, pursuant to Section 19(b)(2) of the Act,<sup>5</sup> the Commission designated a longer period within which to approve, disapprove, or institute proceedings to determine whether to approve or disapprove the Proposed Rule Change.<sup>6</sup> On June 24, 2020, the Commission instituted proceedings to determine whether to approve or disapprove the Proposed Rule Change.<sup>7</sup> On September 22, 2020, the Commission designated a longer period for Commission action on the proceedings to determine whether to approve or disapprove the Proposed Rule Change.<sup>8</sup> For the reasons discussed below, the Commission is approving the proposed rule change.

## **I. DESCRIPTION OF THE PROPOSED RULE CHANGE**

### **A. Background**

NSCC provides clearing, settlement, risk management, central counterparty services, and a guarantee of completion for virtually all broker-to-broker trades involving

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Exchange Act Release No. 90367 (November 6, 2020), 85 Fed. Reg. 73099 (November 16, 2020). The proposal contained in the Proposed Rule Change and the Advance Notice shall not take effect until all regulatory actions required with respect to the proposal are completed.

<sup>4</sup> Comments are available at <https://www.sec.gov/comments/sr-nsc-2020-003/srnsc2020003-7108527-215929.pdf>.

<sup>5</sup> 15 U.S.C. 78s(b)(2).

<sup>6</sup> Securities Exchange Act Release No. 88885 (May 15, 2020), 85 Fed. Reg. 31007 (May 21, 2020) (SR-NSCC-2020-003).

<sup>7</sup> Securities Exchange Act Release No. 89145 (June 24, 2020), 85 Fed. Reg. 39244 (June 30, 2020) (SR-NSCC-2020-003).

<sup>8</sup> Securities Exchange Act Release No. 89949 (September 22, 2020), 85 Fed. Reg. 60854 (September 28, 2020) (SR-NSCC-2020-003).

equity securities, corporate and municipal debt securities, and unit investment trust transactions in the U.S. markets. A key tool that NSCC uses to manage its credit exposure to its Members is collecting an appropriate Required Fund Deposit (i.e., margin) from each Member.<sup>9</sup> A Member's Required Fund Deposit is designed to mitigate potential losses to NSCC associated with liquidation of the Member's portfolio in the event of a Member default.<sup>10</sup> 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 Member default and that Member's Required Fund Deposit, upon liquidation, be insufficient to satisfy NSCC's losses.<sup>11</sup>

Each Member's Required Fund Deposit consists of a number of applicable components, each of which is calculated to address specific risks faced by NSCC, as identified within NSCC's Rules.<sup>12</sup> Generally, the largest component of Members' Required Fund Deposits is the volatility component. The volatility component is designed to reflect the amount of money that could be lost on a portfolio over a given period within a 99% confidence level. This component represents the amount assumed

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<sup>9</sup> Terms not defined herein are defined in NSCC's Rules and Procedures ("Rules"), available at [http://www.dtcc.com/~media/Files/Downloads/legal/rules/nsccl\\_rules.pdf](http://www.dtcc.com/~media/Files/Downloads/legal/rules/nsccl_rules.pdf). See Rule 4 (Clearing Fund) and Procedure XV (Clearing Fund Formula and Other Matters) of the Rules.

<sup>10</sup> Under NSCC's Rules, a default would generally be referred to as a "cease to act" and could encompass a number of circumstances, such as a member's failure to make a Required Fund Deposit in a timely fashion. See Rule 46 (Restrictions on Access to Services), supra, note 9.

<sup>11</sup> See Rule 46 (Restrictions on Access to Services), supra, note 9.

<sup>12</sup> See Procedure XV, supra note 9.

necessary to absorb losses while liquidating the portfolio.

NSCC's methodology for calculating the volatility component of a Member's Required Fund Deposit depends on the type of security and whether the security has sufficient pricing or trading history for NSCC to robustly estimate the volatility component using statistical techniques. Generally, for most securities (e.g., equity securities), NSCC calculates the volatility component using, among other things, a parametric Value at Risk ("VaR") model, which results in a "VaR Charge."<sup>13</sup> However, the VaR model generally relies on predictability, and this model may be less reliable for measuring market risk of securities that exhibit illiquid characteristics. More specifically, the VaR model relies on assumptions that are based on historical observations of security prices. Securities that exhibit illiquid characteristics, which generally have low trading volumes or are not traded frequently, may not generate sufficient price observations to allow the VaR model to provide a precise estimate of market risk for such securities. Accordingly, for securities that do not have sufficient pricing or trading history to perform statistical analysis, NSCC applies a haircut to calculate the volatility component, in lieu of the VaR-based calculation.

**B. Current Practice for Determining Volatility Component for Illiquid Securities and UITs**

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<sup>13</sup> Specifically, NSCC calculates the VaR Charge as the greatest of (1) the larger of two separate calculations that utilize the 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 Sections I.(A)(1)(a)(i) and I.(A)(2)(a)(i) of Procedure XV, supra note 9.

Two types of securities for which NSCC uses a haircut to calculate the volatility component are securities that NSCC deems to be “Illiquid Securities” and UITs. NSCC’s Rules currently define an Illiquid Security as a security that is (i) not traded on or subject to the rules of a national securities exchange registered under the Exchange Act, or (ii) an OTC Bulletin Board<sup>14</sup> or OTC Link issue.<sup>15</sup> Based on its interpretation of that definition, NSCC considers securities that are not listed on the national securities exchanges, i.e., those exchanges which are covered by certain third party data/pricing vendors, to be Illiquid Securities.<sup>16</sup> UITs are redeemable securities, or units, issued by investment companies that offer fixed security portfolios for a defined period of time.

Under NSCC’s current rules, Illiquid Securities and UITs are subject to haircut-based charges to calculate the volatility component of a Member’s Required Fund Deposit based upon two distinct but related rationales. Specifically, Illiquid Securities

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<sup>14</sup> The OTC Bulletin Board is an inter-dealer quotation system that is used by subscribing members of the Financial Industry Regulatory Authority (“FINRA”) to reflect market making interest in eligible securities (as defined in FINRA’s Rules). See <http://www.finra.org/industry/otcbb/otc-bulletin-board-otcbb>.

<sup>15</sup> OTC Link is an electronic inter-dealer quotation system that displays quotes from broker-dealers for many over-the-counter securities. See <https://www.otcm Markets.com>.

<sup>16</sup> NSCC represents that it utilizes multiple third-party vendors to price its eligible securities. NSCC believes that national securities exchanges covered by these third party vendors tend to list securities that exhibit liquid characteristics such as having more available public information, larger trading volumes and higher capitalization. See Notice, supra note 3, 85 Fed. Reg. at 17912. The exchanges that have established listing services that the vendors cover for this purpose are: New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., The Nasdaq Stock Market and Cboe BZX Exchange, Inc. NSCC represents that Members’ Clearing Fund Summary reports, available through the DTCC Risk Portal, identify securities within their portfolio by the ticker symbol and indicate whether those securities are considered Illiquid Securities for purposes of the calculation of the Illiquid Charge. See id.

are considered “securities that are less amenable to statistical analysis, such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars),” and UITs are considered “securities that are amenable to generally accepted statistical analysis only in a complex manner.”<sup>17</sup> Based on these determinations, NSCC considers Illiquid Securities and UITs as categories of securities that tend to exhibit illiquid characteristics, such as low trading volumes or infrequent trading.<sup>18</sup> NSCC therefore calculates the volatility component for these two categories of securities by multiplying the absolute value of a given position by a percentage that is (1) not less than 10% for securities that are less amenable to statistical analysis, including Illiquid Securities,<sup>19</sup> and (2) not less than 2% for securities that are amenable to generally accepted statistical analysis only in a complex manner, including UITs.

In addition to using the haircut-based volatility charge for Illiquid Securities, NSCC currently can also apply an additional charge (an “Illiquid Charge”) for certain positions in Illiquid Securities that exceed volume thresholds set forth in the Rules.<sup>20</sup>

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<sup>17</sup> A security that is less amenable to statistical analysis generally lacks pricing or trading history upon which to perform statistical analysis. A security that is amenable to generally accepted statistical analysis only in a complex manner generally may have pricing or trading history, but further calculations upon the pricing or trading history would be required to perform statistical analysis.

<sup>18</sup> Because the VaR model generally relies on predictability, this model may be less reliable for measuring market risk of securities that exhibit illiquid characteristics.

<sup>19</sup> NSCC currently calculates the volatility charge for IPOs, which have fewer than 31 business days of trading history over the past 153 business days, by applying a haircut of 15% and all other Illiquid Securities by applying a haircut of 20%. See Notice, supra note 3, 85 Fed. Reg. at 17915.

<sup>20</sup> Specifically, the Illiquid Charge applies to Illiquid Positions as defined under NSCC’s Rules. The Rules specify the applicable thresholds that result in an Illiquid Position determination. For example, where a Member’s net buy position in an Illiquid Security exceeds a threshold no greater than 100 million shares, that

NSCC represents that the Illiquid Charge was designed to address a situation where the defaulting Member may have a relatively large position in an Illiquid Security, which would increase the risk that NSCC might face losses when liquidating the Member's position in these securities due to the securities' lack of marketability and other characteristics.<sup>21</sup>

NSCC states that it regularly assesses its market and credit risks, as such risks are related to its margin methodologies, to evaluate whether margin levels are commensurate with the particular risk attributes of each relevant product, portfolio, and market.<sup>22</sup> Based on such assessments, NSCC seeks to refine its current approach to risk managing Member positions in Illiquid Securities and UITs. More specifically, NSCC proposes to (1) revise the definition of Illiquid Security, (2) adopt specific exclusions from the VaR model, and corresponding haircut-based methods for determining volatility components for positions in Illiquid Securities and UITs, (3) eliminate the existing Illiquid Charge, and (4) make certain conforming changes regarding municipal and corporate bonds and Family-Issued Securities.<sup>23</sup>

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position may become subject to the Illiquid Charge. However, NSCC's rules also provide for certain offsets and credit risk considerations that will be considered when determining whether a position in an Illiquid Security should be considered an Illiquid Position and, thus, subject to the additional Illiquid Charge. See Rule 1 and Sections I.(A)(1)(h) and I.(A)(2)(f) of Procedure XV, supra note 9.

<sup>21</sup> See Notice, supra note 3, 85 Fed. Reg. at 17912. See also Securities Exchange Act Release No. 80597 (May 4, 2017), 82 Fed. Reg. 21863 (May 10, 2017) (SR-NSCC-2017-001) (order approving proposed rule change to describe the illiquid charge that may be imposed on Members).

<sup>22</sup> See Notice, supra note 3, 85 Fed. Reg. at 17912.

<sup>23</sup> The term "Family-Issued Security" means a security that was issued by a Member or an affiliate of that Member. See Rule 1, supra note 9.

**C. Proposed Revision to the Definition of Illiquid Security**

Under the Proposed Rule Change, NSCC proposes a new definition of Illiquid Security that would consist of three particular categories of securities. As noted further below, application of the new definition of Illiquid Security would capture a broader set of securities than the current definition.

**(i) Securities Not Listed on a Specified Securities Exchange**

The first category of the new definition of Illiquid Securities would include any security that is not listed on a “specified securities exchange.” For purposes of this definition, NSCC’s Rules would define a “specified securities exchange” as a national securities exchange that has established listing services and is covered by industry pricing and data vendors.<sup>24</sup> NSCC would make the determination of whether a security falls in this category on a daily basis. NSCC represents that this new definition would reflect the process that it currently employs to determine whether a security is not traded on or subject to the rules of a national securities exchange registered under the Securities Exchange Act of 1934, as amended.<sup>25</sup>

**(ii) Micro-capitalization Securities and ADRs Subject to an Illiquidity Ratio**

The second category of the new definition of Illiquid Securities would apply to

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<sup>24</sup> NSCC has stated that the exchanges that would initially be specified securities exchanges are those listed in note 16. See supra note 16.

<sup>25</sup> See Notice, supra note 3, 85 Fed. Reg. at 17913. Based on historic performances, NSCC believes the national securities exchanges that the vendors cover are appropriate for determining if a security exhibits characteristics of liquidity because such exchanges tend to list securities that exhibit liquid characteristics such as having more available public information, larger trading volumes, and higher capitalization. See id.



certain securities that are listed on a specified securities exchange. Specifically, the types of securities that would potentially be considered as Illiquid Securities under this second category either (i) have a market capitalization that is considered by NSCC to be a micro-capitalization (“micro-capitalization” or “micro-cap”) as of the last business day of the prior month, or (ii) are American depository receipts (“ADRs”).<sup>26</sup> To determine whether these securities qualify as Illiquid Securities, NSCC would apply, on a monthly basis, an illiquidity ratio test to these two sets of securities.

### **1. Micro-capitalization Definition**

Initially, NSCC would define “micro-capitalization” as market capitalization of less than \$300 million. Changes to this threshold amount of \$300 million would not be subject to any particular period of review, but would occur when NSCC determines changes may be appropriate.<sup>27</sup> NSCC believes that using market capitalization to consider whether a security is illiquid, in conjunction with the illiquidity ratio test, is appropriate because securities with a market capitalization below a certain threshold tend to exhibit illiquid characteristics such as limited trading volumes and a lack of public

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<sup>26</sup> ADRs are securities that represent shares of non-U.S. companies that are held by a U.S. depository bank outside of the United States. Each ADR represents one or more shares of foreign stock or a fraction of a share.

<sup>27</sup> Any changes to the micro-cap threshold would be subject to NSCC’s model risk management governance procedures as set forth in the Clearing Agency Model Risk Management Framework (“Model Risk Management Framework”). See Notice, supra note 3, 85 Fed. Reg. at 17914. See Securities Exchange Act Release No. 81485 (August 25, 2017), 82 FR 41433 (August 31, 2017) (File No. SR-NSCC-2017-008) (describes the adoption of the Model Risk Management Framework of NSCC which sets forth the model risk management practices of NSCC) and Securities Exchange Act Release No. 84458 (October 19, 2018), 83 FR 53925 (October 25, 2018) (File No. SR-NSCC-2018-009) (amends the Model Risk Management Framework). NSCC would notify Members of any changes to the micro-capitalization threshold by Important Notice.

information.<sup>28</sup>

## **2. ADRs**

With respect to ADRs, NSCC believes that subjecting these securities to the illiquidity ratio test to determine whether a particular ADR is an Illiquid Security is appropriate because the market capitalization of an ADR may be difficult to calculate. This is because of challenges associated with the day-to-day fluctuation of the conversion rate of an ADR into the relevant local security, which in turn makes it difficult to price the ADR.<sup>29</sup> Without knowing the market capitalization of the ADR, it is therefore difficult to determine whether an ADR represents a non-micro-cap issuer.

## **3. Application of the Illiquidity Ratio and the Illiquidity Ratio Test to Micro-cap Securities and ADRs**

The proposal would define the illiquidity ratio for a security as the ratio of the security's daily price return divided by the average daily trading amount<sup>30</sup> of such security over the prior 20 business days. In addition, if NSCC is unable to retrieve data to calculate the illiquidity ratio for a security on any day, NSCC would use a default value for that day for the security (i.e., the security would be treated as illiquid for that day).

In order to classify a micro-cap security or ADR as "illiquid," NSCC then takes the illiquidity ratio calculated for these securities and applies an illiquidity ratio test. The test functions as follows: NSCC determines whether the security's median illiquidity

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<sup>28</sup> See Notice, supra note 3, 85 Fed. Reg. at 17914.

<sup>29</sup> See Notice, supra note 3, 85 Fed. Reg. at 17912.

<sup>30</sup> The daily trading amount equals the daily trading volume multiplied by the end-of-day price. See id.

ratio of the prior six months exceeds a threshold that is set to the 99<sup>th</sup> percentile of the illiquidity ratio of all non-micro-cap common stock using the prior six months of data. Where such a threshold is exceeded, NSCC will designate the relevant security as an Illiquid Security. NSCC performs this exercise, and thereby determines the set of micro-cap securities and ADRs to be considered Illiquid Securities, on a monthly basis.

The illiquidity ratio test is designed to measure the level of a security's price movement relative to its level of trading activity. For example, given the same dollar amount of trading activity, a larger price movement typically indicates less liquidity. Conversely, for price movement of a given magnitude, a smaller dollar amount of trading activity would indicate less liquidity.

Securities that are exchange-traded products ("ETPs") with market capitalization of less than \$300 million could be classified as illiquid upon application of the illiquidity test. However, ETPs and ADRs would be excluded when calculating the illiquidity ratio threshold. ETPs are excluded because the underlying common stocks that make up the ETPs are already included in the calculation. ADRs are excluded because it is difficult to determine whether an ADR represents a non-micro-cap issuer. An ADR's market capitalization may be difficult to calculate due to the fact that, as noted above, each ADR often converts to a different number of shares of a local security. The threshold used in the illiquidity ratio test will be determined by NSCC on a monthly basis using the prior six months of data.

### **(iii) Securities with Limited Trading History**

The third category of the new definition of Illiquid Security would include securities that are listed on a specified securities exchange and, as determined by NSCC

on a monthly basis, have fewer than 31 business days of trading history over the past 153 business days on such exchange. NSCC represents that it has historically used such time period to identify initial public offerings (“IPOs”) which tend to exhibit illiquid characteristics due to their limited trading history, thereby making it an appropriate time period to use for the purposes of determining a security’s liquidity, and IPOs would likely constitute most of the securities that would fall into this category.<sup>31</sup>

**D. Proposed Haircut-Based Volatility Charge Specifically Applicable to Illiquid Securities and UITs**

**(i) Haircut-Based Volatility Charge Applicable to Illiquid Securities**

As proposed in the Notice, NSCC would expressly exclude Illiquid Securities when calculating the volatility component of a Required Fund Deposit using the VaR model and instead would apply a haircut-based volatility charge specifically to Illiquid Securities. To determine the appropriate volatility charge, NSCC would group Illiquid Securities by price level.<sup>32</sup> NSCC generally would calculate one haircut-based volatility charge for short and long positions together. However, with respect to an Illiquid Security that is a sub-penny security, NSCC would calculate the haircut-based volatility charge for short positions and long positions separately.<sup>33</sup>

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<sup>31</sup> See Notice, supra note 3, 85 Fed. Reg. at 17914.

<sup>32</sup> The price level groupings would be subject to NSCC’s model risk management governance procedures set forth in the Model Risk Management Framework. See Notice, supra note 3, 85 Fed. Reg. at 17915; see also Model Risk Management Framework, supra note 27.

<sup>33</sup> NSCC states that the different treatment for Illiquid Securities that are sub-penny securities is appropriate because short positions in sub-penny securities have unlimited upside market price risk, as the price of a security may increase and could potentially subject NSCC to losses under its trade guaranty. NSCC further states the proposal would allow NSCC to calculate a haircut-based volatility charge that accounts for this risk of such price movements. Further, NSCC states

The haircut percentage applicable to each group of Illiquid Securities would be determined at least annually. The applicable percentage, and the decision of how often the applicable percentage is determined, would be subject to NSCC’s model risk management governance procedures set forth in the Model Risk Management Framework.<sup>34</sup> NSCC states that a number of important considerations consistent with the model risk management practices adopted by NSCC could prompt more frequent haircut review, such as material deterioration of a Member’s backtesting performance, market events, market structure changes, and model validation findings.<sup>35</sup>

The haircut percentage would be the highest of the following percentages: (1) 10%, (2) a percent benchmarked to be sufficient to cover the 99.5th percentile of the historical 3-day returns of each group of Illiquid Securities in each Member’s portfolio, and (3) a percent benchmarked to be sufficient to cover the 99th percentile of the historical 3-day returns of each group of Illiquid Securities in each Member’s portfolio after incorporating a fixed transaction cost equal to one-half of the estimated bid-ask spread.<sup>36</sup> The look-back period for purposes of calibrating the applicable percentage

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that sub-penny securities are typically issued by companies with low market capitalization, and may be susceptible to market manipulation, enforcement actions, or private litigation. See Notice, supra note 3, at 85 Fed. Reg. at 17915; Letter from Timothy J. Cuddihy, Managing Director, DTCC Financial Risk Management (September 3, 2020) (“NSCC Letter”) at 10.

<sup>34</sup> See Notice, supra note 3, 85 Fed. Reg. at 17915; see also Model Risk Management Framework, supra note 27.

<sup>35</sup> See id.

<sup>36</sup> If NSCC needs to liquidate a defaulting Member’s portfolio, it may incur a transaction cost which represents bid-ask spreads. Bid-ask spreads account for the difference between the observed market price that a buyer is willing to pay for

would be no less than five years and would initially be five years to be consistent with the historical data set used in model development. The look-back period may be adjusted by NSCC as necessary consistent with the model risk management practices adopted by NSCC to respond to, for example, market events that impact liquidity in the market and Member backtesting deficiencies.<sup>37</sup>

**(ii) Haircut-Based Volatility Charge Applicable to UITs**

Similar to its proposed approach to risk managing Illiquid Securities, NSCC would exclude UITs from calculating the volatility component of the Required Fund Deposit using the VaR model, and instead would assign a percentage to be used in the calculation of a haircut-based volatility charge. UITs are less suited to application of the VaR model because they generally have a limited trading history, which does not provide the type of pricing data that allows for application of the VaR model. NSCC would review the percentage used in this calculation at least annually.

The haircut percentage applicable to UITs would be the highest of (1) 2%, and (2) the 99.5th percentile of the historical 3-day returns for the group of UITs within each Member's portfolio using a look-back period of no less than 5 years. The applicable percentage, and the decision of how often the applicable percentage is determined, would be subject to NSCC's model risk management governance procedures set forth in the

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a security and the observed market price for which a seller is willing to sell that security.

<sup>37</sup> Adjustments to the look-back period would be subject to NSCC's model risk governance procedures set forth in the Model Risk Management Framework. See Notice, supra note 3, 85 Fed. Reg. at 17915; see also Model Risk Management Framework, supra note 27.

Model Risk Management Framework.<sup>38</sup>

**(iii) Revisions to Description of Securities Not Amenable to Generally Accepted Statistical Analysis or Amenable to Statistical Analysis Only in a Complex Manner**

NSCC proposes to revise the existing language in its Rules relating to securities that are either less amenable to statistical analysis or amenable to statistical analysis only in a complex manner.<sup>39</sup> Because Illiquid Securities and UITs would each have specific haircut-based volatility charges pursuant to the Proposed Rule Change, these sections would no longer apply to Illiquid Securities or UITs. Furthermore, NSCC represents that the proposed definition of Illiquid Security would effectively encompass all securities that are currently considered as securities that are less amenable to statistical analysis.<sup>40</sup> However, NSCC believes that it should preserve this category of securities within its Rules because NSCC may find it necessary to calculate margin charges for certain securities that do not constitute Illiquid Securities or UITs and instead would continue to fall under this category.

Further, NSCC represents that certain fixed income securities, such as preferred stocks,<sup>41</sup> would continue to fall into the category of securities that are amenable to

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<sup>38</sup> See id.

<sup>39</sup> NSCC represents that it also would remove the phrase “such as OTC Bulletin Board or Pink Sheet issues or issues trading below a designated dollar threshold (e.g., five dollars)” from the existing language relating to securities that are less amenable to statistical analysis. While this language was intended as an example of these types of securities, NSCC now believes that the example inadequately describes all of the securities that are less amenable to statistical analysis and may be misleading. See Notice, supra note 3, 85 Fed. Reg. at 17912.

<sup>40</sup> See Notice, supra note 3, 85 Fed. Reg. at 17916.

<sup>41</sup> See id.

statistical analysis only in a complex manner. Thus, these types of securities would still be subject to a haircut-based charge. The application of a haircut percentage to any new security, using these categories, would be subject to NSCC's model risk management governance procedures set forth in the Model Risk Management Framework.<sup>42</sup>

**E. Proposed Elimination of the Illiquid Charge**

NSCC proposes to eliminate the existing Illiquid Charge (and the corresponding definition of Illiquid Position), which may be imposed as an additional charge in the volatility component that is applied to Illiquid Securities as securities that are less amenable to statistical analysis. NSCC represents that because the current haircut-based volatility charge that is applied to Illiquid Securities uses fixed percentages for all such securities (15% for IPOs and 20% for the rest of Illiquid Securities), the Illiquid Charge was added to cover some of the risks that the current volatility charge did not cover. NSCC also represents that the proposal would address the risks presented by positions in Illiquid Securities more adequately than the Illiquid Charge, and that therefore the Illiquid Charge would no longer be needed.<sup>43</sup>

**F. Proposed Conforming Changes**

NSCC proposes to make two conforming changes to harmonize the Rules in light of the proposed amendments discussed above. First, the current Rules state that securities less amenable to statistical analysis or amenable to statistical analysis only in a complex manner "other than municipal and corporate bonds" shall be excluded from the

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<sup>42</sup> See id.; see also Model Risk Management Framework, supra note 27.

<sup>43</sup> See Notice, supra note 3, 85 Fed. Reg. at 17917.



VaR Charge.<sup>44</sup> NSCC believes that this drafting is unclear regarding whether municipal and corporate bonds are excluded from this section of the Rules. Moreover, the reference to municipal and corporate bonds is not necessary in this portion of the Rules because a different subsection of the Rules<sup>45</sup> provides separately for haircut-based volatility charges for municipal and corporate bonds. The proposal would therefore remove this reference to municipal and corporate bonds from this section of the Rules.

Second, the Rules currently provide that Family-Issued Securities are excluded from calculation of the volatility component using the VaR model because the specific haircut-based volatility charge for such securities is provided in a separate subsection. However, the separate subsection only refers to “long Net Unsettled Positions in Family-Issued Securities.”<sup>46</sup> Based on the current drafting of the Rules, NSCC believes that it is unclear how positions in Family-Issued Securities would be treated.<sup>47</sup> In practice, NSCC states that currently, short positions in Family-Issued Securities whose volatility is less amenable to statistical analysis are subject to the haircut set forth in Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, and those short positions in Family-Issued Securities that meet particular volume thresholds are subject to the Illiquid

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<sup>44</sup> Sections I.(A)(1)(a)(ii) and I.(A)(2)(a)(ii) of Procedure XV, supra note 9.

<sup>45</sup> Section I.(A)(1)(a)(iii) of Procedure XV, supra note 9.

<sup>46</sup> Id. In addition, the current Rules exclude “family issued security” from the current definition of Illiquid Security, which is subject to Illiquid Charge, providing that the term is provided in Procedure XV, although Procedure XV does not provide such definition.

<sup>47</sup> See Notice, supra note 3, 85 Fed. Reg. at 17917.

Charge.<sup>48</sup> NSCC proposes to revise the Rules to expressly reference its current practice that long positions in Family-Issued Securities would be excluded from the VaR Charge but subject to the haircut-based volatility charge exclusively applicable to such securities in a separate provision of the Rules. In addition, determination of the appropriate margin for short positions in Family-Issued Securities would continue to be covered by the haircut-based volatility charge in Sections I.(A)(1)(a)(ii) and I.(A)(2)(A)(ii) as securities that are less amenable to statistical analysis.

## **II. DISCUSSION AND COMMISSION FINDINGS**

Section 19(b)(2)(C) of the Act<sup>49</sup> 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 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 Sections 17A(b)(3)(F)<sup>50</sup> and (b)(3)(I)<sup>51</sup> of the Act and Rules 17Ad-22(e)(4)(i), (e)(6)(i), and (e)(23)(ii) thereunder.<sup>52</sup>

### **A. Consistency with Section 17A(b)(3)(F) of the Act**

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<sup>48</sup> See Notice, supra note 3, 85 Fed. Reg. at 17913 and 17917 n. 52.

<sup>49</sup> 15 U.S.C. 78s(b)(2)(C).

<sup>50</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>51</sup> 15 U.S.C. 78q-1(b)(3)(I).

<sup>52</sup> 17 CFR 240.17Ad-22(e)(4)(i), (e)(6)(i), and (e)(23)(ii).

Section 17A(b)(3)(F) of the Act<sup>53</sup> requires that the rules of a clearing agency, such as NSCC, be designed to: (i) promote the prompt and accurate clearance and settlement of securities transactions; (ii) assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible; (iii) foster cooperation and coordination with persons engaged in the clearance and settlement of securities transactions; (iv) remove impediments to and perfect the mechanism of a national system for the prompt and accurate clearance and settlement of securities transactions; and (v) protect investors and the public interest.

The Commission believes that the proposal is consistent with Section 17A(b)(3)(F) of the Act for the reasons stated below.

**(i) Prompt and Accurate Clearance and Settlement and Safeguarding of Securities and Funds**

As described above in Section I.C, NSCC proposes to revise the definition of “Illiquid Securities” to provide additional specific objective criteria that would lead to a security being considered as an Illiquid Security, which would, in turn, broaden the scope of securities that would be considered as Illiquid Securities for assessing margin requirements. For example, NSCC would consider additional factors such as an issuer’s market capitalization and a defined illiquidity ratio to determine whether a security is illiquid, which would capture certain exchange-listed securities that the current rules do not include as Illiquid Securities. Therefore, the Commission believes that NSCC’s proposed new definition of Illiquid Securities is designed to more precisely identify securities with illiquid characteristics than the current methodology.

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<sup>53</sup> 15 U.S.C. 78q-1(b)(3)(F).

Moreover, as described above in Section I.D, NSCC proposes to specifically exclude Illiquid Securities and UITs when calculating the volatility component of a Required Fund Deposit using the VaR model, and to change the haircut-based volatility component of the Clearing Fund formula that is applicable to positions in Illiquid Securities and UITs. Currently, in order to calculate the volatility component, fixed percentages are applied to two general categories of securities that encompass Illiquid Securities and UITs, i.e., (1) securities that are less amenable to statistical analysis, and (2) securities that are amenable to generally accepted statistical analysis only in a complex manner. The proposal would apply a specific percentage developed for Illiquid Securities and UITs. In addition, instead of using the current fixed haircut percentages for Illiquid Securities, the proposal would group such securities by price level and apply a different haircut percentage based on the specific price group. Illiquid Securities that are sub-penny securities would be separately grouped by long or short position to more accurately reflect different levels of risk presented by long and short positions of such securities (i.e., a higher level of risk is associated with the short positions in sub-penny securities). The proposal would also require NSCC to regularly assess appropriate haircut percentages to cover its credit risks. The Commission believes that by providing that the volatility component of margin for Illiquid Securities and UITs should be determined by applying haircuts tailored to specific groups of Illiquid Securities and to UITs, this change should result in margin amounts that are more commensurate with the risk attributes of these types of securities, thereby limiting NSCC's credit exposure to Members holding positions in such securities.

NSCC provided information regarding the impact of the proposed rule change on its backtesting coverage.<sup>54</sup> Specifically, a recent impact study shows that the proposal would improve its backtesting coverage from 96.2% to 99.5% for the asset group that exhibited the lowest average backtesting coverage percentages (i.e., short positions in sub-penny securities and securities priced between one cent and one dollar).<sup>55</sup> The Commission has reviewed NSCC's analysis and agrees that its results indicate that NSCC's proposal results in margin levels that better reflect the risks and particular attributes of the Member's portfolio.

In addition, as described in Section I.E, NSCC proposes to eliminate the existing Illiquid Charge. This existing charge would no longer be needed in light of the revised definition and haircut-based margin methodology described in Sections I.C and I.D, which would more precisely address the risk that the Illiquid Charge purported to cover. As described in Section I.F, NSCC proposes to make conforming changes to harmonize the Rules in light of the changes described in Sections I.C and I.D. The Commission believes that these changes are designed to provide clear and coherent Rules regarding the haircut-based volatility charge for Illiquid Securities and UITs.

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<sup>54</sup> Backtesting is an ex-post comparison of actual outcomes with expected outcomes derived from the use of margin models. See 17 CFR 240.17Ad-22(a)(1).

<sup>55</sup> See Notice, supra note 3, 85 Fed. Reg. at 17915. 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. NSCC also filed the proposal contained in the Proposed Rule Change as Advance Notice. See supra note 3. Because the proposals contained in the Advance Notice and the Proposed Rule Change are the same, all information provided by NSCC regarding the improvements in backtesting coverage for other asset groups was considered regardless of whether the information submitted with respect to the Advance Notice or the Proposed Rule Change.

Taken together, the Commission believes that the Proposed Rule Change is designed to allow NSCC to collect margin more precisely tailored to the nature of the risks presented by positions in securities with illiquid characteristics than the current methodology, and in a manner that fully addresses NSCC's applicable credit exposures. In turn, the proposal should help ensure that, in the event of a Member default, NSCC's operation of its critical clearance and settlement services would not be disrupted because of insufficient financial resources. Accordingly, the Commission finds that NSCC's proposal should help NSCC to continue providing prompt and accurate clearance and settlement of securities transactions in the event of a Member default, consistent with Section 17A(b)(3)(F) of the Act.

Moreover, by better limiting NSCC's exposure to Members, the proposal is designed to help ensure that NSCC has collected sufficient margin from Members, so that non-defaulting Members would not be exposed to mutualized losses resulting from the default of a Member holding positions in Illiquid Securities and/or UITs. Accordingly, the Commission believes that by helping to limit non-defaulting Members' exposure to mutualized losses, the proposal is designed to help assure the safeguarding of securities and funds which are in NSCC's custody or control, consistent with Section 17A(b)(3)(F) of the Act.

One commenter asserts that the proposal does not promote the prompt and accurate clearance and settlement of securities transactions, and also does not assure the safeguarding of securities and funds which are in the custody or control of NSCC or for which it is responsible because (1) the haircut-based volatility charge fails to bring clarity and transparency, (2) NSCC failed to explain how the current formula leaves members

exposed to default, and (3) NSCC failed to explain how the proposed methodology would limit exposure in the event of a Member default.<sup>56</sup>

The Commission disagrees with this comment. First, and as discussed further in Section II.E, the Commission believes that the Proposed Rule Change identifies what would constitute an Illiquid Security and describes how the haircut-based charge for Illiquid Securities and UITs would apply. Second, and as discussed further above, NSCC provided backtesting results to show that NSCC has a backtest coverage of 96.2% for the asset group that exhibited the lowest average backtesting coverage percentages (i.e., short positions in sub-penny securities and securities priced between one cent and one dollar), as compared to a backtest coverage of 99.5% under the Proposed Rule Change. As demonstrated by the backtesting analysis, under its current margin methodology, NSCC is not achieving its 99% targeted confidence level for asset groups that are Illiquid Securities. Based on its review of the Notice and the materials filed as part of the Proposed Rule Change, in conjunction with the Commission's supervisory observations, the Commission believes that the proposed changes would better enable NSCC to collect margin commensurate with the different levels of risk that Members pose to NSCC as a result of their particular trading activity in Illiquid Securities and UITs. Finally, the Commission believes that the proposed changes would enable NSCC to collect margin that more accurately reflects the risk characteristics of Illiquid Securities and UITs by applying a haircut more precisely tailored to Illiquid Securities (grouped by price level

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<sup>56</sup> See Letter from Daniel Zinn, General Counsel and Cass Sanford, Associate General Counsel, OTC Markets Group Inc. (July 21, 2020) ("OTC II Letter") at 2-3.

and a long or short positions) and UITs, and therefore allow NSCC to be in a better position to absorb losses in connection with a Member default and manage its credit exposure to such Member.

**(ii) Protection of Investors and the Public Interest**

The Commission believes that the proposal should help protect investors and the public interest by mitigating some of the risks presented by NSCC as a central counterparty. Because a defaulting member could place stresses on NSCC with respect to NSCC's ability to meet its clearance and settlement obligations upon which the broader financial system relies, it is important that NSCC has a robust margin methodology to limit NSCC's credit risk exposure in the event of a Member default. As described above, the Proposed Rule Change would revise the definition of an "Illiquid Security," and the haircut-based methods for determining volatility components for positions in Illiquid Securities and UITs. These changes should help improve NSCC's ability to calculate margin accurately to better produce margin that is more commensurate with the risks associated with its Members' Illiquid Securities and UITs, and thus more effectively cover its credit exposures to its Members. By collecting margin that more accurately reflects the risk characteristics of such securities, NSCC would be in a better position to absorb and contain the spread of any losses that might arise from a Member default. Therefore, the proposal is designed to reduce the possibility that NSCC would need to call for additional resources from non-defaulting Members due to a Member default, which could inhibit the ability of these non-defaulting Members to facilitate securities transactions. Accordingly, the Commission believes that the proposal is designed to protect investors and the public interest by mitigating some of the systemic



risks presented by NSCC as a central counterparty.

One commenter states that the proposal does not protect investors because the increased costs will likely be passed on to retail shareholders of small firms.<sup>57</sup> The Commission is not persuaded that the proposal will not protect investors solely because of the potential for increased costs that could be passed on to retail shareholders of small firms. While the proposal may result in an increase in the Required Fund Deposit for a Member who transacts in Illiquid Securities and UITs, such an increase is designed to allow NSCC to reduce the risks it faces associated with Illiquid Securities and UITs in the event of a Member default.<sup>58</sup> As a result, NSCC should be more resilient so that it can satisfy its obligations as a central counterparty while reducing the possibility that NSCC would need to mutualize among non-defaulting Members any losses arising out of a Member default, which facilitates the protection of investors by helping to ensure that investors receive the proceeds from their securities transactions.

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<sup>57</sup> See OTC II Letter at 3.

<sup>58</sup> This benefit may be particularly important since, as the Commission discussed elsewhere, small firms, which tend to be most financially constrained, may be disproportionately affected by downturns or tightening credit conditions. See Temporary Amendments to Regulation Crowdfunding, Securities Act Release No. 10781 (May 4, 2020), 85 Fed. Reg. 27116, 27123 n. 40 (May 7, 2020) (citing to Gabriel Perez-Quiros and Allan Timmermann, *Firm Size and Cyclical Variations in Stock Returns*, 55(3) Journal of Finance 1229–1262 (2000) (showing that “small firms display the highest degree of asymmetry in their risk across recession and expansion states, which translates into a higher sensitivity of their expected stock returns with respect to variables that measure credit market conditions”); Murillo Campello and Long Chen, *Are Financial Constraints Priced? Evidence from Firm Fundamentals and Stock Returns*, 42(6) Journal of Money, Credit, and Banking 1185–1198 (2010) (finding that financially constrained firms’ business fundamentals are significantly more sensitive to macroeconomic movements than unconstrained firms’ fundamentals); Eugene Fama and Kenneth French, *Common Risk Factors in the Returns on Stocks and Bonds*, 3 Journal of Financial Economics 3–56 (1993)).

Several commenters expressed concerns that the proposal would discourage entry to the public market by small and growing companies, hinder small business capital formation, negatively impact small company liquidity, and dissuade investors from trading in Illiquid Securities.<sup>59</sup> Several commenters stated that the proposal will hurt small broker-dealers, which in turn will hurt small businesses, and is detrimental to small business capital formation needs.<sup>60</sup> Several commenters stated that the proposal would negate the objectives of Regulations D, A+, and Crowdfunding, and negatively affect small business capital formation.<sup>61</sup>

In response, NSCC states that the Proposed Rule Change is not designed to advantage or disadvantage capital formation in any particular market segment.<sup>62</sup> NSCC further states that the Proposed Rule Change focuses entirely on managing the clearance

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<sup>59</sup> Letter from John Busacca, Founder, The Securities Industry Professional Association (April 23, 2020) (“SIPA Letter”) at 3; Letter from James Snow, President, Wilson-Davis & Co., Inc. (November 20, 2020) (“Wilson III Letter”) at 5. The SIPA Letter also expresses concern regarding increased costs arising from regulatory and DTC requirements generally, as well as the results of SEC and FINRA trading suspensions. *Id.* at 3. Other commenters expressed similar concern regarding general increases in costs not related to this proposal. See also Letter from Kimberly Unger, The Security Traders Association of New York, Inc. (June 30, 2020) (“STANY Letter”) at 2-3; and Letter from James C. Snow, Chief Compliance Officer, Wilson-Davis & Co., Inc. (July 29, 2020) (“Wilson II Letter”) at 5. Such issue is not directed to the Proposed Rule Change and, accordingly, is beyond the scope of the Commission’s consideration.

<sup>60</sup> See Letter from Charles F. Lek, Lek Securities Corporation (April 30, 2020) (“Lek Letter”) at 3; Letter from Daniel Zinn, General Counsel and Cass Sanford, Associate General Counsel, OTC Markets Group Inc. (June 26, 2020) (“OTC I Letter”) at 4; STANY Letter at 2.

<sup>61</sup> See SIPA Letter at 3; Wilson II Letter at 2; Wilson III Letter at 4; OTC I Letter at 4.

<sup>62</sup> See NSCC Letter at 10.

and settlement risk associated with secondary transactions in securities with illiquid characteristics as required by Section 17A of the Exchange Act, which is unaffected by those initiatives.<sup>63</sup>

First, with respect to the commenters who raised concerns regarding liquidity and capital formation, the Commission believes that limiting NSCC's exposure to its Members by allowing NSCC to collect more accurate margin to manage its exposure to Illiquid Securities and UITs would benefit Members due to NSCC's decreased exposure to losses resulting from a Member default. Effectively mitigating such risks would, in turn, reduce the likelihood that NSCC would have to call on its Members to contribute additional resources, which would otherwise could be used by its Members to facilitate securities transactions thereby providing liquidity to the securities markets. Thus, the Commission believes that NSCC's proposal, by helping non-defaulting members preserve their financial resources, could promote liquidity provision in such circumstances because these resources would be available to facilitate securities transactions.

The Commission acknowledges that the proposal could increase the margin required to be collected from a Member who transacts in Illiquid Securities and UITs, which, in turn, may cause such a Member to incur additional costs to access needed liquidity for meeting margin requirements. Despite these potential impacts, the Commission is not persuaded that the Proposed Rule Change would have a negative effect on small business capital formation such that it would be inconsistent with the public interest. To the extent that Members incur funding costs associated with

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<sup>63</sup> See id.

additional margin, they may choose to distribute these costs across transactions in all securities for which they make markets rather than allocate those costs only to transactions in securities that require additional margin. Thus, the fact that Members have flexibility in how they allocate costs could mitigate negative impacts, if any, on the liquidity and capital formation of a particular subset of issuers.

The Commission recognizes the possibility that, as a result of the proposed change, some Members may pass along some of the costs related to margin requirements such that they ultimately are borne, to some degree, by investors in Illiquid Securities. However, non-defaulting Members' exposure to mutualized losses resulting from a Member's default and any resulting disruptions to clearance and settlement absent the Proposed Rule Change may also increase costs to investors and potentially adversely impact market participation, liquidity, and access to capital by issuers, including issuers of Illiquid Securities. As a result, and as the Commission previously acknowledged, this proposed rule change may help reduce transaction costs in the markets NSCC clears, and reductions in counterparty default risk allow the corresponding portion of transaction costs to be allocated to more productive uses by market participants who otherwise would bear those costs.<sup>64</sup> Moreover, as discussed in Section II.A(i) above, by helping to limit non-defaulting Members' exposure to mutualized losses, the proposed rule change is designed to help assure the safeguarding of securities and funds of its Members that are in NSCC's custody or control, consistent with Section 17A(b)(3)(F).

Further, the Commission is not persuaded by the commenters' generalized

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<sup>64</sup> See Securities Exchange Act Release No. 78961 (September 28, 2016), 81 Fed. Reg. 70786, 70866-67 (October 13, 2016) (S7-03-14) ("CCA Standards Adopting Release").

statements on the potential impact on small business capital formation that could result from implementation of the Proposed Rule Change. The Commission acknowledges the possibility that, as the commenter asserted, issuers of securities in smaller companies may experience a reduction in liquidity because of the increased margin requirements applicable to transactions in Illiquid Securities. Nevertheless, the Commission believes that investors would not be discouraged from holding Illiquid Securities. The Commission understands that, in general, stock prices fall in response to a reduction in liquidity until such securities provide an adequate desired return for investors,<sup>65</sup> and some studies indicate illiquid stocks pay investors a higher expected stock excess return to compensate for greater illiquidity.<sup>66</sup> Thus, as long as stock prices can adjust to reflect the reduced liquidity, affected small issuers may still be able to attract capital from investors, albeit at a higher cost that appropriately reflects the risks inherent in the clearance and settlement of the securities they issue. Moreover, to the extent that investment decisions are driven by other factors, such as the future prospects of specific companies, there

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<sup>65</sup> See, e.g., Viral Acharya and Lasse H. Pedersen, 2005, *Asset pricing with liquidity risk*, 77 Journal of Financial Economics 375-410 (2005).

<sup>66</sup> See, e.g., Yakov Amihud, *Illiquidity and stock returns: cross-section and time series effects*, 5(1) Journal of Financial Markets 31-56 (2002); Joel Hasbrouck, *Trading costs and returns for US equities: estimating effective costs from daily data*, 64(3) The Journal of Finance 1445-1477 (2009); Robert A. Korajczyk and Ronnie Sadka, *Pricing the commonality across alternative measures of liquidity*, 87(1) Journal of Financial Economics 45-72 (2008); and Michael J. Brennan, Tarun Chordia, Avanidhar Subrahmanyam and Qing Tong, *Sell-order liquidity and the cross-section of expected stock returns*, 105(3) Journal of Financial Economics 523-541 (2012). However, some studies do not find that more illiquid stocks have higher expected returns. See, e.g., Michael J. Brennan and Avanidhar Subrahmanyam, *Market microstructure and asset pricing: on the compensation for illiquidity in stock returns*, 41(3) Journal of Financial Economics 441-464 (1996); Matthew I. Spiegel and Xiaotong Wang, *Cross-sectional variation in stock returns: liquidity and idiosyncratic risk*, Yale ICF Working Paper No. 05-13 (2005).

might be no decrease in access to capital or little change in cost.

In addition, the commenters' arguments ignore the potential benefits to small businesses when their securities are eligible for central clearing by NSCC. As do other clearing agencies, NSCC provides a number of services that mitigate risk, reduce costs, and enhance processing efficiencies for the securities markets, market participants, issuers (including small issuers), and investors. By reducing NSCC's risk exposure to its members and thus the likelihood of its failure, the proposal helps ensure that NSCC would continue to provide such services, which would benefit securities markets, market participants, issuers (including small issuers), and investors. Thus, the commenters do not take into account any potential positive impacts on small business capital formation that may arise as a result of the Proposed Rule Change.

Therefore, notwithstanding the potential unspecified impact on capital formation in smaller and less liquid markets, as described above, the Commission believes that, in light of the potential benefits to investors arising from the Proposed Rule Change and the resulting overall improved risk management at NSCC, i.e., the prompt and accurate clearance and settlement of securities transactions and the safeguarding of securities and funds based on the collection of margin commensurate with the risks presented by these securities, the Proposed Rule Change is designed to protect investors and the public interest, consistent with Section 17A(b)(3)(F) of the Act.

**(iii) Fostering Cooperation and Removing Impediments**

Several commenters asserted that the Proposed Rule Change is inconsistent with Section 17A(b)(3)(F) of the Act because the proposal neither addresses nor meets all of

the elements prescribed in Section 17A(b)(3)(F).<sup>67</sup> In response to these comments, the Commission acknowledges that Section 17A(b)(3)(F) of the Act requires a clearing agency's rules to be designed to meet a number of objectives, as listed above. However, certain proposals may not necessarily directly implicate every aspect of Section 17A(b)(3)(F). Nevertheless, for the reasons discussed below, the Commission disagrees with the commenters that the Proposed Rule Change does not meet with the requirements of Section 17A(b)(3)(F) related to whether a clearing agency's rules are designed to foster cooperation and coordination with persons engaged in the clearance and settlement of securities transactions, and to remove impediments to and perfect the mechanism of a national system for the prompt and accurate clearance and settlement of securities transactions.

One commenter argues that the proposal will not foster cooperation and coordination between the various market participants engaged in processing transactions in Illiquid Securities because increased margin requirements will disadvantage smaller firms, exacerbating the trend of firms ceasing to provide liquidity in thinly traded stocks due to overly burdensome regulatory costs.<sup>68</sup> As an initial matter, Section 17A(b)(3)(F) has a narrower scope than the issue raised by the commenter, in that it addresses cooperation and coordination with persons engaged in the clearance and settlement of securities transactions and not among market participants more broadly. Nevertheless, even when considering Section 17A(b)(3)(F) as it could apply to market participants

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<sup>67</sup> See OTC I Letter at 4; OTC II Letter at 2-3; Wilson II Letter at 6; Wilson III Letter at 1.

<sup>68</sup> See OTC II Letter at 3.

more broadly, the Commission does not agree with the commenter's argument that increased margin requirements could disadvantage smaller firms and is inconsistent with fostering cooperation and coordination with persons engaged in the clearance and settlement of securities transactions. This proposal would establish a clear and transparent methodology for determining the volatility component of margin for a particular class of securities that would apply to all NSCC Members in a uniform manner.<sup>69</sup> The use of such a uniform methodology is essential to fostering and ensuring cooperation and coordination with persons engaged in the clearance and settlement of securities transactions because it provides a generally applicable and understood methodology established ex ante for determining margin for this particular class of securities. The collection of appropriately tailored margin pursuant to this methodology would, in turn, help decrease the likelihood that losses arising out of a Member default would exceed NSCC's prefunded resources and threaten NSCC's ability to continue providing clearance and settlement of securities transactions and to serve market participants as a central counterparty and, therefore, to provide an infrastructure for cooperation in the continued clearance and settlement of securities transactions. Therefore, the Commission believes that the Proposed Rule Change is consistent with fostering cooperation and coordination, as provided under Section 17A(b)(3)(F).

The commenters further state that the proposal would not remove impediments to the national system for prompt and accurate clearance and settlement but would impose additional requirements and increase the already prohibitive transactional costs involved in clearing and settling OTC and small company stocks, making already thinly traded

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<sup>69</sup> See Section II.E infra.



securities more illiquid.<sup>70</sup> The Proposed Rule Change is designed to allow NSCC to better identify securities that present illiquid characteristics based on additional objective criteria and to impose tailored haircuts to determine the appropriate margin for such securities and UITs. These changes will, in turn, enable NSCC to collect margin more precisely tailored to the different levels of risk that Members pose to NSCC as a result of their particular trading activity in Illiquid Securities and UITs, resulting in more accurate clearance and settlement of securities transactions. The Commission believes that these improvements to the clearance and settlement of securities transactions are consistent with removing impediments to the national system for clearance and settlement, in that less precise margin determinations could constitute an impediment to NSCC's continued ability to clear and settle securities transactions if losses arising out of a Member default were to exceed NSCC's prefunded resources and threaten NSCC's continued operation as a central counterparty for securities transactions. For these reasons, the Commission believes that this change is consistent with removing impediments to the national system of clearance and settlement, as provided under Section 17A(b)(3)(F).

For the reasons discussed above, the Commission believes that the Proposed Rule Change is consistent with the requirements of Section 17A(b)(3)(F) of the Act.<sup>71</sup>

**B. Consistency with Section 17A(b)(3)(I) of the Act**

Section 17A(b)(3)(I) of the Act requires that the rules of a clearing agency do not impose any burden on competition not necessary or appropriate in furtherance of the

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<sup>70</sup> See OTC II Letter at 3; Wilson III Letter at 1.

<sup>71</sup> 15 U.S.C. 78q-1(b)(3)(F).

Act.<sup>72</sup> This provision does not require the Commission to find that a proposed rule change represents the least anticompetitive means of achieving the goal. Rather, it requires the Commission to balance the competitive considerations against other relevant policy goals of the Act.<sup>73</sup>

The Commission received various comments regarding the proposal's impact on competition. Several commenters argued that the proposal would disproportionately affect smaller broker-dealer Members and small companies.<sup>74</sup> One commenter acknowledged that the proposal would apply to all Members equally, but was concerned that the proposal is likely to disproportionately impact smaller Members and harm competition.<sup>75</sup> Multiple commenters asserted that the proposal would discriminate against small Members because the proposal would demand higher margin, which would in turn raise the cost for liquidity.<sup>76</sup> One commenter further contended that, while large bank-affiliated broker-dealer Members will not have a liquidity issue resulting from the proposal, other Members will have a liquidity issue under the proposal.<sup>77</sup>

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<sup>72</sup> 15 U.S.C. 78q-1(b)(3)(I).

<sup>73</sup> See *Bradford National Clearing Corp.*, 590 F.2d 1085, 1105 (D.C. Cir. 1978).

<sup>74</sup> See Letter from Christopher R. Doubek, CEO, Alpine Securities Corporation (April 21, 2020) (“Alpine Letter”) at 2 and 3; SIPA Letter at 3; and Lek Letter at 2 and 3.

<sup>75</sup> See OTC I Letter at 5.

<sup>76</sup> See Alpine Letter at 2; STANY Letter at 2; OTC I Letter at 5; and Lek Letter at 2.

<sup>77</sup> See Lek Letter at 2. Lek Letter and SIPA Letter also argue that the unfair burden on competition is due to the fact that DTCC's board is almost entirely made up of representatives from large banks and other big-businesses. See Lek Letter at 3 and SIPA Letter at 2. This proposal does not change the composition of DTCC's board, and the commenter does not provide specifics information regarding the composition of DTCC's board and how it relates to this proposal. As discussed

In response, NSCC acknowledges that the proposal may result in an increase in the Required Fund Deposit for a Member effecting transactions in Illiquid Securities, and that it may also result in higher margin costs overall for Members whose business is concentrated in Illiquid Securities, relative to other Members with more diversified portfolios. However, NSCC states that the methodology for computing the margin requirement for a Member's Required Fund Deposit under the proposal does not take into consideration the Member's size or overall mix of business in liquid or illiquid securities, including micro-cap securities, relative to other Members. Any effect the proposal would have on a particular Member's margin requirement is solely a function of the default risk posed to NSCC by the Member's activity at NSCC – firm size or business model is not pertinent to the assessment of that risk.<sup>78</sup> Accordingly, NSCC believes that the proposal does not discriminate against Members or affect them differently on either of those bases.

NSCC states that it is required to manage clearance and settlement risk presented by each Member with respect to the particular securities products each Member transacts through the system by, among other things, collecting margin sufficient to cover the risk of default with respect to those trades with a high degree of confidence. Accordingly, each Member is primarily responsible for mitigating the risk associated with its own business.<sup>79</sup> NSCC represents that the proposal is intended to provide a more robust

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below, the impact of the proposed changes are determined by a Member's portfolio composition and trading activity rather than a Member's size or type. As addressed throughout, the Commission has concluded that the proposal does not impose any burden on competition not necessary or appropriate in furtherance of the Act.

<sup>78</sup> See NSCC Letter at 4.

<sup>79</sup> See NSCC Letter at 5.

assessment and coverage of the risk associated with volatility exhibited by Illiquid Securities that NSCC has identified through backtesting to the statutorily prescribed level.<sup>80</sup> As contemplated by the Act and Rule 17Ad-22, each Member would be responsible to provide margin commensurate with the default risk posed by its business to NSCC under the proposal.

The Commission acknowledges that the Proposed Rule Change could entail increased margin charges to some Members that would be borne by those Members. In considering the costs and benefits of the requirements of Rule 17Ad-22(e)(6), the Commission expressly acknowledged in the CCA Standards Adopting Release that risk-based initial margin requirements may cause market participants to internalize some of the costs borne by the central counterparty as a result of large or risky positions and stated that confirming that margin models are well-specified and correctly calibrated with respect to economic conditions will help ensure that the margin requirements continue to align the incentives of a central counterparty's members with the goal of financial stability.<sup>81</sup> Nevertheless, in response to the comments that the proposal would

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<sup>80</sup> Id.

<sup>81</sup> See CCA Standards Adopting Release, supra note 64, 81 Fed. Reg. at 70870. In addition, when considering the benefits, costs, and effects on competition, efficiency, and capital formation, the Commission recognized that a covered clearing agency, such as NSCC, might pass incremental costs associated with compliance on to its members, and that such members may seek to terminate their membership with that CCA. See id., 81 Fed. Reg. at 70865. Moreover, when considering similar comments related to a proposed rule change designed to address a covered clearing agency's liquidity risk, the Commission concluded that the imposition of additional costs did not render the proposal inconsistent with the Exchange Act. See Securities Exchange Act Release No. 82090 (November 15, 2017), 82 Fed. Reg. 55427, 55438 n. 209 (November 21, 2017) (SR-FICC-2017-002).

disproportionately affect smaller broker-dealer Members or those broker-dealer Members that are not affiliated with large banks, the Commission believes that the impact of the proposed changes would be entirely determined by a Member's portfolio composition and trading activity rather than a Member's size or type. The Proposed Rule Change would calculate the volatility component of a Member's Required Fund Deposit based on the risks presented by positions in Illiquid Securities, as described in Section I.C. To the extent a Member's volatility component would increase under the Proposed Rule Change, that increase would be based on the securities held by the Member and NSCC's requirement to collect margin to appropriately address the risk.

In addition, as noted above, the Commission acknowledges that the impact of a higher margin requirement may present higher costs on some Members relative to others due to a number of factors, such as access to liquidity resources, cost of capital, business model, and applicable regulatory requirements. These higher relative burdens may weaken certain Members' competitive positions relative to other Members.<sup>82</sup> However, the Commission believes that such burden on competition stemming from a higher impact on some members than on others is necessary and appropriate. The Commission believes that NSCC is required to 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. NSCC's members include a large and diverse

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<sup>82</sup> These potential burdens are not fixed, and affected Members may choose to restructure their liquidity sources, costs of capital, or business model, thereby moderating the potential impact of the Proposed Rule Change.

population of entities. By participating in NSCC, each Member is subject to the same margin requirements, which are designed to satisfy NSCC's regulatory obligation to manage the risk presented by its Members. As discussed in more detail in Section II.D below, this Proposed Rule Change is designed to ensure that NSCC collects margin that is commensurate with the risks presented by Illiquid Securities and UITs.

Furthermore, NSCC has provided an impact study demonstrating that the proposal would raise the current lowest average backtesting coverage from 96.2% to 99.5%.<sup>83</sup> As noted above, the Commission has reviewed NSCC's analysis and agrees that its results indicate that NSCC's proposal results in margin levels that better reflect the risks and particular attributes of the Member's portfolio and help NSCC achieve backtesting coverage that meets its targeted confidence level. In turn, the Commission believes that the Proposed Rule Change would help NSCC better maintain sufficient financial resources to cover its credit exposures to each Member in full with a high degree of confidence. By helping NSCC to better manage its credit exposure, the proposal would help NSCC better mitigate the potential losses to NSCC and its Members associated with liquidating a Member's portfolio in the event of a Member default, in furtherance of NSCC's obligations under Section 17A(b)(3)(F) of the Act as shown in Section II.A.

Therefore, for the reasons stated above, the Commission believes that the Proposed Rule Change is consistent with the requirements of Section 17A(b)(3)(I) of the Act<sup>84</sup> because any competitive burden imposed by the proposal is necessary and appropriate in furtherance of the Act.

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<sup>83</sup> See note 55.

<sup>84</sup> 15 U.S.C. 78q-1(b)(3)(I).

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

Rule 17Ad-22(e)(4)(i) under the Exchange Act requires that each covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by maintaining sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.<sup>85</sup>

Several commenters question whether NSCC has adequately demonstrated that its proposal is consistent with Rule 17Ad-22(e)(4)(i) under the Exchange Act by showing the insufficiency of NSCC's current margin methodology and whether the increase in margin is necessary.<sup>86</sup> Two commenters state that NSCC has not demonstrated that its current margin requirements are insufficient to cover credit risks to its Members.<sup>87</sup>

In response, NSCC states that the proposal is designed to provide a more accurate measure of the risks associated with Illiquid Securities and to cover in full the risks presented by Members to NSCC.<sup>88</sup> To demonstrate why the proposed revision to its methodology for assessing margin on Illiquid Securities is necessary to address the risk presented by such securities, NSCC relies upon the results of recent backtesting analyses. Specifically, NSCC examines the backtesting coverage for a historical time period under both the current and proposed margin methodologies. Based on this analysis, NSCC

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<sup>85</sup> 17 CFR 240.17Ad-22(e)(4)(i).

<sup>86</sup> See Lek Letter at 1; STANY Letter at 1; OTC I Letter at 2.

<sup>87</sup> See STANY Letter at 1; OTC I Letter at 2.

<sup>88</sup> See NSCC Letter at 6.

represents that the proposal would help NSCC to address the risk presented by Illiquid Securities and that it would improve the lowest average backtesting coverage with respect to Illiquid Securities from 96.2% to 99.5% for the asset group that exhibited the lowest average backtesting coverage percentages (i.e., short positions in sub-penny securities and securities priced between one cent and one dollar).<sup>89</sup> NSCC further states that its backtesting results and Member impact studies indicate that Illiquid Securities, particularly low-priced Illiquid Securities, are more likely to present additional risk.<sup>90</sup>

NSCC notes that the proposed changes to its methodology produce a more accurate haircut calculation by factoring in price levels, resulting in margin levels that better reflect the risks and particular attributes of Member portfolios.<sup>91</sup> NSCC represents that the enhanced methodology for identifying Illiquid Securities and the calculation of the haircut-based volatility component applicable to these securities and UITs improve the risk-based methodology, which in turn, better manage its credit exposures to Members.<sup>92</sup>

The Commission believes that the proposal is consistent with Rule 17Ad-

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<sup>89</sup> Id. at 5; 17 CFR 240.17Ad-22(e)(4)(i). NSCC also notes that this improvement in coverage level would allow it to meet the high degree of confidence referenced in Rule 17Ad-22(e)(4)(i). Id. As stated above, the volatility component of the margin collected by NSCC is designed to reflect the amount of money that could be lost on a portfolio over a given period within a 99% confidence level, and NSCC has established a 99% target backtesting confidence level. See, e.g., Procedure XV, Section I.B(3), supra note 9.

<sup>90</sup> See NSCC Letter at 5.

<sup>91</sup> See NSCC Letter at 5-6.

<sup>92</sup> See NSCC Letter at 6.



22(e)(4)(i) under the Exchange Act.<sup>93</sup> Specifically, the proposal to revise the definition of Illiquid Securities would help NSCC to better identify securities that may present credit exposures unique to such securities for purposes of applying an appropriate margin charge. The proposal would provide additional criteria that use more objective factors to determine what constitutes an Illiquid Security. These factors consider a security's listing status, trading history, and market capitalization, and would result in a more accurate classification of securities with illiquid characteristics being considered as Illiquid Securities. In addition, the proposal to base the calculation of the haircut-based volatility charge applied to positions in Illiquid Securities and UITs on those securities' price level and risk profile would enable NSCC to collect and maintain sufficient and precisely calibrated resources to cover its credit exposures to each participant whose portfolio contains positions in Illiquid Securities and/or UITs with a high degree of confidence. The Commission has reviewed and analyzed NSCC's analysis of the improvements in its backtesting coverage, and agrees that the analysis demonstrates that the proposal would result in better backtesting coverage and, therefore, less credit exposure to its Members. Finally, the proposal appropriately requires NSCC to review and determine the haircut percentages at least annually. Accordingly, the Commission believes that the proposal would enable NSCC to better manage its credit risks by allowing it to respond regularly and more effectively to any material deterioration of backtesting performances, market events, market structure changes, or model validation findings.

In response to comments that NSCC has not demonstrated that current margin

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<sup>93</sup> 17 CFR 240.17Ad-22(e)(4)(i).

requirements are insufficient to cover credit risks to its Members, the Commission disagrees. In considering these comments, the Commission thoroughly reviewed and considered (i) the Proposed Rule Change, including the supporting exhibits that provided confidential information on the performance of the proposed revision to the definition of an Illiquid Security and the use of a revised haircut-based methodology applicable to both Illiquid Securities and UITs and backtesting coverage results; (ii) the comments received; and (iii) the Commission's own understanding of the performance of the current margin methodology, with which the Commission has experience from its general supervision of NSCC, compared to the proposed margin methodology.<sup>94</sup> Based on its review of these materials, the Commission believes that the proposal would, in fact, better enable NSCC to cover its credit exposure to Members and meet the applicable Commission regulatory requirements. Specifically, the Commission has considered the results of NSCC's backtesting coverage analyses, which indicate that the current margin methodology results in backtesting coverage that does not meet NSCC's targeted confidence level. The analyses also indicate that the proposal would result in improved backtesting coverage that meets NSCC's targeted coverage level. Therefore, the Commission believes that the proposal would provide NSCC with a more precise margin calculation designed to meet the applicable regulatory requirements for margin coverage.

Therefore, for the reasons discussed above, the Commission believes that the changes proposed in the Proposed Rule Change are reasonably designed to enable NSCC

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<sup>94</sup> In addition, because the proposals contained in the Advance Notice and the Proposed Rule Change are the same, all information submitted by NSCC was considered regardless of whether the information submitted with respect to the Advance Notice or the Proposed Rule Change. See supra notes 3 and 55.

to effectively identify, measure, monitor, and manage its credit exposure to Members, consistent with Rule 17Ad-22(e)(4)(i).<sup>95</sup>

**D. Consistency with Rule 17Ad-22(e)(6)(i)**

Rule 17Ad-22(e)(6)(i) under the Exchange Act requires that each covered clearing agency that provides central counterparty services establish, implement, maintain and enforce written policies and procedures reasonably designed to cover its credit exposures to its participants by establishing a risk-based margin system that, at a minimum, considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market.<sup>96</sup>

Several commenters suggest that the proposal does not reflect the actual risk attributes of the securities to which it would apply.<sup>97</sup> For example, two commenters state that treating as Illiquid Securities all securities that are not listed on a “specified securities exchange,” which would be defined as a national securities exchange that has established listing services and is covered by industry pricing and data vendors, is not tailored to accurately capture securities that present the defined liquidation and marketability risks, noting that many large international companies’ securities are traded in the OTC marketplace.<sup>98</sup> Two commenters state that the proposal is unwarranted because the existing margin has always been enough to cover a defaulting Member’s losses, and

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<sup>95</sup> 17 CFR 240.17Ad-22(e)(4)(i).

<sup>96</sup> 17 CFR 240.17Ad-22(e)(6)(i).

<sup>97</sup> See Alpine Letter; OTC I Letter; STANY Letter; and Letter from Daniel Zinn, General Counsel and Cass Sanford, Associate General Counsel, OTC Markets Group Inc. (July 21, 2020) (“OTC II Letter”).

<sup>98</sup> See OTC II Letter at 5; STANY Letter at 3.

accordingly, the current margin should be enough to cover the risks presented by Members' portfolios.<sup>99</sup> One commenter states that NSCC has not justified a \$300 million market capitalization requirement for all exchange-listed stocks, and that this threshold does not consider the actual risks facing NSCC.<sup>100</sup> Another commenter states that ETPs and ADRs, which are products typically offered by large banks and brokerages, are excluded from the definition of an Illiquid Security, and that such exclusion shows a bias against small Members.<sup>101</sup> In addition, one commenter states that the proposal bears no relationship to a Member's actual credit rating.<sup>102</sup>

In response to comments regarding treating as Illiquid Securities all securities that

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<sup>99</sup> See Lek Letter at 1; Wilson III Letter at 3. Lek also states that net capital should be considered solely as additional insurance for agency firms, and that NSCC should include the margin that Lek collects from its customers when computing Lek's capital. Id. However, this issue is beyond the scope of this proposal and is not addressed herein. Further, one commenter argues that the Proposed Rule Change is also unwarranted because NSCC could address NSCC's market risk exposure by modifying the settlement timeline. See Wilson III Letter at 4. According to the commenter, if the NSCC proposed rules that would eliminate the two-day settlement cycle in favor of immediate, same-day electronic settlement, the market risk exposure would be eliminated. See id. The Commission disagrees with the argument. The securities industry transitioned to the current two-day settlement cycle on September 5, 2017, only after a multi-year, industry-wide initiative and the Commission's amendment of Rule 15c6-1. See Securities Exchange Act Release No. 78962 (September 28, 2016), 81 Fed. Reg. 69240, 69254 (October 5, 2016) ("Discussion of Current Efforts To Shorten the Settlement Cycle in the U.S."); See Securities Exchange Act Release No. 80295 (March 22, 2017), 82 Fed. Reg. 15564 (March 29, 2017). Therefore, the commenter's suggestion that NSCC could unilaterally shorten the current two-day settlement to a same-day settlement cycle is not a feasible alternative to the Proposed Rule Change.

<sup>100</sup> See STANY Letter at 3.

<sup>101</sup> See SIPA Letter.

<sup>102</sup> See Alpine Letter at 4.

are not listed on a national securities exchange that has established listing services and is covered by industry pricing and data vendors, NSCC states that securities that trade on a national securities exchange tend to trade with greater frequency in higher volumes than other venues, and national securities exchanges are subject to price and volume reporting regimes that assure greater accuracy of price and volume information.<sup>103</sup> NSCC further states that securities that are not listed on a national securities exchange may trade without being registered with the Commission and have less reliable price and volume information.<sup>104</sup>

In addition, NSCC explains that it included the second element of the criteria, “covered by industry pricing and data vendors,” to ensure that NSCC is able to access and utilize quality third party pricing data to derive returns in order to calculate the appropriate margin.<sup>105</sup> NSCC further explains that the commercial availability of reliable information from independent, third party sources is critical to ensuring that NSCC can rely on end of day and intraday pricing in order to accurately manage risk positions consistent with its Rules.<sup>106</sup> Accordingly, NSCC believes that the use of “specified securities exchange” as defined in the proposal is an appropriate basis for determining whether a security is an Illiquid Security.<sup>107</sup>

Regarding the comments that many large international companies’ securities are

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<sup>103</sup> See NSCC Letter at 8.

<sup>104</sup> See NSCC Letter at 8-9.

<sup>105</sup> See id.

<sup>106</sup> See id.

<sup>107</sup> See id.

traded in the OTC marketplace, NSCC acknowledges that the proposed definition of Illiquid Securities would cover the securities of some large, well-capitalized issuers not listed on a specified securities exchange.<sup>108</sup> However, NSCC states that the proposal is designed to appropriately address risk in part by grouping Illiquid Securities by price level, and sub-penny securities by long or short position.<sup>109</sup> Accordingly, not all Illiquid Securities would be given the same haircut or have the same margin requirements or result in a higher deposit than would be required under the current Rules.<sup>110</sup>

The Commission understands that, as described above, the proposal as a whole is designed to enable NSCC to more effectively address the risks presented by Members' positions in securities with illiquid characteristics, including Illiquid Securities and UITs. As such, NSCC seeks to produce margin levels that are more commensurate with the particular risk attributes of these securities, including the risk of increased transaction and market costs to NSCC to liquidate or hedge due to lack of liquidity or marketability of such positions. The Commission believes that the proposal would improve NSCC's ability to consider, and produce margin levels commensurate with, the risks and particular attributes of Illiquid Securities and UITs.

First, by expanding and refining the definition of Illiquid Securities, the Commission believes that NSCC should be able to better identify those securities that may exhibit illiquid characteristics. Specifically, the proposal would ensure that three separate categories of securities are included in the definition of an Illiquid Security, and

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<sup>108</sup> See id.

<sup>109</sup> See id.

<sup>110</sup> See id.

all three categories are calibrated to take into account specific and objective factors that are indicative of a security's liquidity. For example, the second category of the proposed definition of an Illiquid Security would apply an illiquidity ratio to micro-cap securities and ADRs to get a more precise measure of their liquidity. Moreover, consistent with NSCC's current practice for determining the margin for securities in an initial public offering, the third category of the proposed definition would consider the frequency of a security's trading, to take into account that infrequent trading reduces the amount of price and volume information available to measure market risk.

In addition, the Commission believes that the proposed changes to the haircut-based volatility charges to base the calculation on the price level and risk profile of the applicable security would help NSCC to more effectively measure the risks that are particular to Illiquid Securities and UITs. Based on its analysis of the backtesting and impact analyses and its understanding of the proposed definition of an Illiquid Security, the Commission believes that the differentiated haircut percentages are reasonably designed to cover NSCC's exposures to Members more precisely and appropriately than the current fixed percentage approach because NSCC designed the variable haircut percentages to reflect specific risks presented by Illiquid Securities by price level and by UITs. The Commission also believes that it is reasonable to separate long and short positions of sub-penny securities in order to reflect the different risk levels presented by such positions.

Taken together, the Commission believes that the proposal should permit NSCC to calculate a haircut-based volatility charge that is more appropriately designed to address the risks presented by the positions in Illiquid Securities and UITs.

In response to the comments questioning whether the proposal is necessary because “the existing margin has always been enough to cover”<sup>111</sup> a defaulting Member’s losses, the Commission does not agree that the fact that margin has historically been sufficient to cover a defaulting Member’s losses obviates the need for the changes proposed in the Proposed Rule Change. As an initial matter, credit exposures are not measured only by those events that have actually happened, but also include events that could potentially occur in the future. For this reason, a risk-based margin system is required to cover potential future exposure to participants.<sup>112</sup> Potential future exposure is, in turn, defined as the maximum exposure estimated to occur at a future point in time with an established single-tailed confidence level of at least 99% with respect to the estimated distribution of future exposure.<sup>113</sup> Thus, to be consistent with its regulatory requirements, NSCC must consider potential future exposure, which includes, among other things, losses associated with the liquidation of a defaulted member’s portfolio. As demonstrated by the backtesting analysis discussed above, under its current margin methodology, NSCC is not achieving its 99% targeted confidence level for asset groups that are Illiquid Securities. Based on its review of the Proposed Rule Change, in conjunction with the Commission’s supervisory observations, the Commission believes

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<sup>111</sup> See Lek Letter at 1; see also Wilson III at 3-4.

<sup>112</sup> 17 CFR 240.17Ad-22(e)(6)(iii) (requiring a covered clearing agency to 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, calculates margin sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default).

<sup>113</sup> 17 CFR 240.17Ad-22(a)(13).



that the proposed changes would better enable NSCC to collect margin commensurate with the different levels of risk that Members pose to NSCC as a result of their particular trading activity in Illiquid Securities and UITs. Further, the Commission believes the amount of margin NSCC would collect under the proposed changes would help NSCC better manage its credit exposures to its Members and those exposures arising from its payment, clearing, and settlement processes.

In response to the comment asserting that a \$300 million market capitalization requirement for all exchange-listed stocks is not justifiable, the Commission disagrees with this interpretation of the proposal. Not all securities that fall under the market capitalization threshold under the proposal would be deemed to be Illiquid Securities or require a higher margin compared to the current Rules. As set forth in the proposal, the determination of whether a micro-cap security is an Illiquid Security does not rely solely on capitalization. By contrast, under the proposal, the initial determination of whether a security is a micro-cap security would employ a \$300 million threshold,<sup>114</sup> and a micro-cap security would then be subject to the illiquidity ratio test described in Section I.C(ii)3 above to take into account the security's liquidity and determine whether it is an Illiquid Security. Therefore, depending on the liquidity of the issuer, there could be instances where a security with less than \$300 million in market capitalization would not constitute an Illiquid Security.

In response to the comments stating that treating all securities that are not listed

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<sup>114</sup> NSCC represents that the initial threshold is set at \$300 million because it is based on prevailing thresholds for market capitalization categories in the industry. See NSCC Letter at 9; Notice, supra note 3, 85 Fed. Reg. at 17912 n. 24 (citing, as an example of the prevailing views, <https://www.sec.gov/reportspubs/investor-publications/investorpubs/microcapstockhtm.html>).

on a specified exchange as Illiquid Securities is not tailored to accurately capture securities that present the defined liquidation and marketability risks, the Commission disagrees. This proposal does not change the current categorization as Illiquid Securities of securities that are not listed on a specified securities exchange, because the current Rules define Illiquid Securities to include securities that are not traded on a national securities exchange. Further, the Commission believes that this distinction is appropriate. Securities that are quoted on the OTC market differ from those listed on national securities exchanges.<sup>115</sup> In particular, the average OTC security issuer is smaller, and their securities trade less, on average, than securities traded on a national securities exchange.<sup>116</sup> Moreover, issuers of quoted OTC securities tend to have a lower market capitalization than those with securities listed on a national securities exchange,<sup>117</sup> and many quoted OTC securities are illiquid.<sup>118</sup> Quoted OTC securities are characterized by significantly lower dollar trading volumes than listed stocks, even for securities of similar size as measured by market capitalization.<sup>119</sup>

In response to the comment that ETPs and ADRs are exempt from the definition of Illiquid Securities, the Commission disagrees. The Proposed Rule Change would not exclude all ETPs and ADRs by category from the definition of Illiquid Securities.

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<sup>115</sup> Securities Act Release No. 68124 (September 16, 2020), 85 Fed. Reg. 68124, 68185 (October 27, 2020) (S7-14-19) (“Publication or Submission of Quotations Without Specified Information”).

<sup>116</sup> See id.

<sup>117</sup> See id.

<sup>118</sup> See id.

<sup>119</sup> See id.

Instead, the proposal would only exclude ETPs and ADRs when calculating the illiquidity ratio threshold for purposes of the second test under the definition of an Illiquid Security (i.e., the median of the illiquidity ratio threshold based on non-micro-cap common stocks). An ETP or an ADR could be determined to be an Illiquid Security, and NSCC would apply a haircut to ETPs and ADRs in the same manner as other Illiquid Securities.

Finally, in response to the comment that the proposal bears no relationship to a Member's actual credit rating, the Commission disagrees that such a relationship is necessary in order to design an accurate and appropriate margin methodology for the securities that a Member holds. Neither the proposal, nor NSCC's margin methodology more broadly, is designed to calculate the volatility component based on a Member's credit rating but rather on the risks presented by each security. Therefore, the Member's credit rating is not relevant to the determination of the appropriate volatility component of the margin for a particular security.<sup>120</sup>

Accordingly, the Commission believes the proposal is consistent with Rule 17Ad-22(e)(6)(i) under the Exchange Act because it is designed to assist NSCC in maintaining

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<sup>120</sup> The Alpine Letter also questions whether the Credit Risk Rating Matrix ("CRRM") will continue to be used in the margin calculation for Illiquid Securities. See Alpine Letter at 3. NSCC responds that the calculation of the appropriate haircuts for Illiquid Securities, including calculation of the appropriate volume thresholds, does not consider the Member's CRRM rating. The CRRM rating currently is used in determining the Illiquid Position subject to NSCC's Illiquid Charge, which will be eliminated upon implementation of the proposal. See NSCC Letter at 7-8. Going forward, the CRRM would continue to be used in general credit risk monitoring of members, but would not be used for the determination of the volatility component of the margin for a particular security. See Securities Exchange Act Release No. 80734 (May 19, 2017), 82 Fed. Reg. 24177 (May 25, 2017) (order approving proposed rule changes to enhance the CRRM).

a risk-based margin system that considers, and produces margin levels commensurate with, the risks and particular attributes of portfolios that exhibit illiquid risk attributes.<sup>121</sup>

**E. Consistency with Rule 17Ad-22(e)(23)(ii)**

Rule 17Ad-22(e)(23)(ii) under the Exchange Act requires each covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency.<sup>122</sup>

The majority of commenters express concerns regarding the method for determining the proposed volatility component for Illiquid Securities being confidential. Several commenters express concern that the proposal does not explain how the haircut-based volatility charge will be calculated and that the proposal does not allow Members to review the proposed margin equations, models, and calculations.<sup>123</sup> Other commenters state that the proposal is overly complicated and does not allow Members to predict the

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<sup>121</sup> 17 CFR 240.17Ad-22(e)(6)(i).

<sup>122</sup> 17 CFR 240.17Ad-22(e)(23)(ii).

<sup>123</sup> See Alpine Letter at 2; SIPA Letter at 4-5; OTC I Letter at 2-3; OTC II Letter at 3-4; Wilson II Letter at 7. Wilson II also asserts that NSCC has failed to meet the requirements of Rule 17Ad-22(e)(23)(iii) for failing to quantify the current inadequate market capitalization, median illiquidity ratios, and how those factors would be improved under the proposal. However, Rule 17Ad-22(e)(23)(iii) requires each covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to publicly disclose relevant basic data on transaction volume and values. This rule does not require a covered clearing agency to disclose the specific information that the commenter seeks because the information described by the commenter is not the basic data on transaction volumes and values required by the rule. Moreover, NSCC publicly provides data on transaction volumes and values in its quantitative disclosures, which are available at <https://www.dtcc.com/legal/policy-and-compliance>.

financial consequences and operating impacts of their activities, and the impact on their liquidity needs.<sup>124</sup>

In response, NSCC states that the language of the proposal is reasonably transparent and clear enough to enable Members to determine the Member's Required Fund Deposit.<sup>125</sup> NSCC states that the proposed parameters are definitive and non-discretionary to enable application on an algorithmic basis.<sup>126</sup> For example, a security that is an ADR or has a micro-capitalization of less than \$300 million would be subject to the illiquidity ratio test, which would be provided in the Rules, to determine whether it is an Illiquid Security. In addition, NSCC states that, because haircuts would be applied according to the price level of the Illiquid Securities, Members should be able to more easily determine the applied margin impact per the current market price of the security.<sup>127</sup>

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<sup>124</sup> See Letter from James C. Snow, President/CCO, Wilson-Davis & Co., Inc. (May 1, 2020) (“Wilson I Letter”) at 2-3; STANY Letter at 2; Wilson III Letter at 2. Wilson III also states that NSCC failed to meet the requirements of Rule 17Ad-22(e)(23)(ii) and (iii), which requires a clearing agency to provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency and to publicly disclose relevant basic data on transaction volume and values, because NSCC has not undertaken the requisite studies or gathered sufficient data to fully understand the impact of the Proposed Rule Change. See Wilson III Letter at 3. The Commission disagrees with this comment. First, as described in more detail below, NSCC provides methods for Members to understand their respective margin requirements. See *infra* note 127 and accompanying text. Second, as stated above, NSCC submitted to the Commission impact studies comparing the impact of the current and proposed methodologies on its Members, and provided additional information regarding the improvements in backtesting coverage for other asset groups in confidential exhibits. See *supra* notes 55 and 94.

<sup>125</sup> See NSCC Letter at 6.

<sup>126</sup> See *id.*

<sup>127</sup> See *id.*

NSCC also represents that it maintains the NSCC Risk Management Reporting application on the Participant Browser Service (“PBS”) and the NSCC Risk Client Portal (“Portal”) to improve transparency of Members’ Clearing Fund requirements.<sup>128</sup> NSCC states that the PBS is a member-accessible website portal for accessing reports and other disclosures. NSCC further states that the Risk Management Reporting application enables a Member to view and download Clearing Fund requirement information and component details, including issue-level Clearing Fund information related to start of day volatility charges and mark-to-market, intraday exposure, and other components.<sup>129</sup> NSCC represents that the application enables a Member to view, for example, a portfolio breakdown by asset type, including the amounts attributable to the parametric VaR model and the amounts associated with Illiquid Securities.<sup>130</sup> NSCC also represents that Members are able to view and download spreadsheets that contain market amounts for current clearing positions and the associated volatility charges.<sup>131</sup>

In addition, NSCC represents that the Portal provides members the ability, for information purposes, to view and analyze certain risks relating to their portfolio, including calculators to assess the risk and clearing fund impact of certain activities and to compare their portfolio to historical and average values. For example, it allows Members to review both hourly and 15-minute intra-day snapshots to monitor fluctuations in the volatility and exposure in their portfolios to help Members to

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<sup>128</sup> See id.

<sup>129</sup> See id.

<sup>130</sup> See id.

<sup>131</sup> See id.

anticipate potential intra-day margin calls. The intervals are available through 7:00 p.m. to provide additional reports that may help Members to forecast next-day margin requirements.<sup>132</sup>

NSCC further represents that it maintains the NSCC Client Calculator on the Portal that provides functionality to Members to enter ‘what-if’ position data and to recalculate their volatility charges to determine margin impact pre-trade.<sup>133</sup> NSCC specifically states that this calculator allows Members to see the impact to the volatility charge if specific transactions are executed, or to anticipate the impact of an increase or decrease to a current clearing position.<sup>134</sup> NSCC represents that the Client Calculator portfolio detail can be downloaded to modify a current margin portfolio, and then allow Members to upload the portfolio to run a margin calculation, and permit Members to view position level outputs in order to make informed risk management and execution decisions.<sup>135</sup>

Finally, NSCC states that it conducted member outreach in connection with the proposal described in the Proposed Rule Change. NSCC represents that, in 2019 and 2020, NSCC distributed three rounds of impact studies to Members impacted by the change to communicate revisions to the methodology and discuss specific portfolio impacts by reviewing charts and quantitative results.<sup>136</sup> NSCC further represents that it

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<sup>132</sup> See NSCC Letter at 7.

<sup>133</sup> See id.

<sup>134</sup> See id.

<sup>135</sup> See id.

<sup>136</sup> See id. Wilson III states that unlike NSCC’s representation, only one impact study was received. See Wilson III Letter at 3. The Commission does not believe

has performed outreach to Members with details for this proposal for the past two years, which allowed Members to understand and ask questions about the proposal.<sup>137</sup>

NSCC states that it has also posted an NSCC Risk Margin Component Guide (“Guide”) on the Portal which provides descriptions of some of the components used in NSCC’s current risk-based methodology, including the volatility charges, mark-to-market charges, fail charges for CNS transactions, a charge for Family-Issued Securities to mitigate wrong way risk, a charge for Illiquid Positions, a charge to mitigate day over day margin differentials, a coverage component and a backtesting charge.<sup>138</sup> NSCC represents that the Guide will be updated to reflect the changes in methodology set forth in the proposal.<sup>139</sup>

The Commission believes that the proposal is consistent with Rule 17Ad-22(e)(23)(ii) and is designed to provide sufficient information to enable Members to identify and evaluate the risks and other material costs they incur by participating in NSCC. The changes described in the proposal would be reflected in NSCC’s Rules and

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that NSCC’s purported failure to provide particular impact studies to all of its Members is a dispositive factor in determining whether the Proposed Rule Change is designed to be consistent with Rule 17Ad-22(e)(23)(ii). Rule 17Ad-22(e)(23)(ii) requires NSCC to provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they may incur. NSCC has (1) acknowledged that that the proposal may result in an increase in the Required Fund Deposit for a Member effecting transactions in Illiquid Securities, and that it may also result in higher margin costs overall for Members whose business is concentrated in Illiquid Securities, relative to other Members with more diversified portfolios, and (2) provided Members with a Portal that enables them to identify and evaluate their costs.

<sup>137</sup> See NSCC Letter at 7.

<sup>138</sup> See id.

<sup>139</sup> See id.



therefore publicly available to NSCC's Members and prospective members for application to their own portfolios. Specifically, the proposed rule text would reflect the two sets of changes in the proposal. First, the proposed rule text would define the types of securities that would constitute "Illiquid Securities" as three particular categories of securities, as described in Section I.C(i), (ii), and (iii). By reviewing the definitions of an Illiquid Security, NSCC's members should be able to understand the types of factors that would cause a security to be considered an Illiquid Security, all of which are ascertainable, such as its trading history (including whether it is traded on an exchange or not and, if so, on which exchange), its market capitalization, and the type of security (i.e., whether it is an ADR). The specific parameters of the illiquidity ratio test would also be reflected in NSCC's Rules, thereby enabling a Member to determine whether a security that is an ADR or has a micro-capitalization of less than \$300 million would be an Illiquid Security.

Second, the proposed rule text would provide that NSCC would apply a haircut to Illiquid Securities to determine the appropriate volatility component, with Illiquid Securities grouped by price level to determine the appropriate haircut to apply to a particular security. The proposed rule text would further specify that the haircut percentage would be the highest of the three percentages as provided in Section I.D(i), and would be determined at least annually. Additionally, if a Member had questions with respect to a particular security, it could use the various client-facing tools described above to determine whether a security would be considered an Illiquid Security. Taken together, the Commission believes that the proposal, which would be reflected in NSCC's Rules, in conjunction with the various client-facing tools, provides sufficient information

to Members to understand the operation of the haircut-based volatility charges and how such charges would apply to particular transactions. The Commission further believes that NSCC provided sufficient information to Members to identify and evaluate the risks and other material costs they would incur due to securities with illiquid characteristics under the proposal.

For these reasons, the Commission disagrees with the comments stating that the proposal lacks details and does not explain how the haircut-based volatility charge will be calculated, and that the proposal does not allow Members to predict the impact on their activities. The Commission acknowledges that, as some commenters have noted, the proposal does not provide or specify the actual models or calculations that NSCC would use to determine the appropriate haircut or what constitutes an Illiquid Security. However, when adopting the CCA Standards,<sup>140</sup> the Commission declined to adopt a commenter's view that a covered clearing agency should be required to provide, at least quarterly, its methodology for determining initial margin requirements at a level of detail adequate to enable participants to replicate the covered clearing agency's calculations, or, in the alternative, that the covered clearing agency should be required to provide a computational method with the ability to determine the initial margin associated with changes to each respective participant's portfolio or hypothetical portfolio, participant defaults and other relevant information. The Commission stated that "[m]andating disclosure of this frequency and granularity would be inconsistent with the principles-based approach the Commission is taking in Rule 17Ad-22(e)."<sup>141</sup> Consistent with that

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<sup>140</sup> 17 CFR 240.17Ad-22(e).

<sup>141</sup> See CCA Standards Adopting Release, supra note 64, 81 Fed. Reg. at 70845.

approach, the Commission does not believe that Rule 17Ad-22(e)(23)(ii) would require NSCC to disclose its actual margin methodology, so long as NSCC has provided sufficient information for its Members to understand the potential costs and risks associated with participating in NSCC for clearing Illiquid Securities.

For the reasons discussed above, the Commission believes that the proposals in the Proposed Rule Change would enable NSCC to establish, implement, maintain, and enforce written policies and procedures reasonably designed to provide sufficient information to enable Members to identify and evaluate the risks, fees, and other material costs they incur as NSCC's Members, consistent with Rule 17Ad-22(e)(23)(ii).<sup>142</sup>

### **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<sup>143</sup> and the rules and regulations promulgated thereunder.

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<sup>142</sup> 17 CFR 240.17Ad-22(e)(23)(ii).

<sup>143</sup> 15 U.S.C. 78q-1.

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Act<sup>144</sup> that proposed rule change SR-NSCC-2020-003, be, and hereby is, APPROVED.<sup>145</sup>

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>146</sup>

J. Matthew DeLesDernier  
Assistant Secretary

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<sup>144</sup> 15 U.S.C. 78s(b)(2).

<sup>145</sup> In approving the proposed rule change, the Commission considered the proposals' impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f). See also Section II.B.

<sup>146</sup> 17 CFR 200.30-3(a)(12).