

Required fields are shown with yellow backgrounds and asterisks.

Page 1 of \* 49      SECURITIES AND EXCHANGE COMMISSION      File No.\* SR - 2017 - \* 006  
 WASHINGTON, D.C. 20549      Form 19b-4      Amendment No. (req. for Amendments \*)

Filing by National Securities Clearing Corporation  
 Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

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

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010	Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 806(e)(1) * <input type="checkbox"/>	Section 3C(b)(2) * <input type="checkbox"/>
Section 806(e)(2) * <input type="checkbox"/>	

Exhibit 2 Sent As Paper Document       Exhibit 3 Sent As Paper Document

**Description**  
 Provide a brief description of the action (limit 250 characters, required when Initial is checked \*).  
 To adopt the Clearing Agency Stress Testing Framework

**Contact Information**  
 Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name \* Kristen      Last Name \* Lam  
 Title \* Director and Assistant General Counsel  
 E-mail \* klam1@dtcc.com  
 Telephone \* (212) 855-5258      Fax

**Signature**  
 Pursuant to the requirements of the Securities Exchange Act of 1934,  
 has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.  
 (Title \*)  
 Date 04/07/2017      Managing Director and Deputy General Counsel  
 By Nikki Poulos      npoulos@dtcc.com  
 (Name \*)

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

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

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

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

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

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

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

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

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

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

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Exhibit Sent As Paper Document

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

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

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Exhibit Sent As Paper Document

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

**Exhibit 4 - Marked Copies**

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

**Exhibit 5 - Proposed Rule Text**

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

**Partial Amendment**

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

## **1. Text of the Proposed Rule Change**

(a) The proposed rule change of National Securities Clearing Corporation (“NSCC”) would adopt the Clearing Agency Stress Testing Framework (Market Risk) (“Framework”) of NSCC and its affiliates, The Depository Trust Company (“DTC”) and Fixed Income Clearing Corporation (“FICC,” and together with NSCC and DTC, the “Clearing Agencies”), described below. The Framework would apply to both of FICC’s divisions, the Government Securities Division (“GSD”) and the Mortgage-Backed Securities Division (“MBSD”). The Framework would be maintained by the Clearing Agencies in compliance with Rule 17Ad-22(e)(4)(i), (iii) through (vii), under the Securities Exchange Act of 1934, as amended (the “Act”), as described below.<sup>1</sup>

Although the Clearing Agencies would consider the Framework to be a rule, the proposed rule change does not require any changes to the Rules, By-Laws and Organization Certificate of DTC (“DTC Rules”), the Rulebook of GSD (“GSD Rules”), the Clearing Rules MBSD (“MBSD Rules”), or the Rules & Procedures of NSCC (“NSCC Rules”), as the Framework would be a standalone document.<sup>2</sup>

(b) Not applicable.

(c) Not applicable.

## **2. Procedures of the Self-Regulatory Organization**

The proposed rule change was approved by the Risk Committee of the Board of Directors of each of DTC, FICC, and NSCC (collectively, “Boards”) at a meeting duly called and held on December 20, 2016.

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

### **(a) Purpose**

The Clearing Agencies are proposing to adopt the Framework, which would set forth the manner in which each Clearing Agency effectively identifies, measures, monitors and manages

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<sup>1</sup> 17 CFR 240.17Ad-22(e)(4)(i), and (iii) through (vii). The Commission adopted amendments to Rule 17Ad-22, including the addition of new section 17Ad-22(e), on September 28, 2016. See Securities Exchange Act Release No. 78961 (September 28, 2016), 81 FR 70786 (October 13, 2016) (S7-03-14). Each of the Clearing Agencies is a “covered clearing agency” as defined in Rule 17Ad-22(a)(5), and must comply with new section (e) of Rule 17Ad-22 by April 11, 2017.

<sup>2</sup> Capitalized terms not defined herein are defined in the DTC Rules, GSD Rules, MBSD Rules, or NSCC Rules, as applicable, available at <http://dtcc.com/legal/rules-and-procedures>.

its credit exposures to Members<sup>3</sup> and those arising from its payment, clearing, and settling processes, as applicable. In general, the Framework would describe the stress testing practices adopted by the Clearing Agencies that are designed to ensure the sufficiency of each Clearing Agency's total prefunded financial resources, as described in greater detail below. The Framework would describe (i) the sources of each Clearing Agency's total prefunded financial resources; (ii) the Clearing Agencies' stress testing methodologies; (iii) the Clearing Agencies' stress testing governance and execution processes; and (iv) the Clearing Agencies' model validation practices. The Framework would address stress testing of each Clearing Agency's total prefunded financial resources, and would not address assessments for additional contributions or other resources that are not prefunded and may be available to the Clearing Agencies. The Framework would be owned and managed by the Data and Portfolio Analytics group within the Quantitative Risk Management department.<sup>4</sup>

The Framework would first outline the regulatory requirements that apply to each Clearing Agency with respect to credit risk management, and then would describe how the Clearing Agencies address those requirements. The Framework would describe the credit risk management strategy of each of the Clearing Agencies,<sup>5</sup> which is to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the affiliated family ("Affiliated Family") of Members that would potentially cause the largest aggregate credit exposure to the Clearing Agency in extreme but plausible market conditions ("Cover One Requirement").<sup>6</sup> Because the credit risks and prefunded financial resources of the Clearing Agencies are different in certain respects, the Framework would describe the prefunded financial resources and related stress testing methodologies of the Clearing Agencies separately, where applicable.

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<sup>3</sup> FICC and NSCC refer to their participants as "Members," while DTC refers to its participants as "Participants." These terms are defined in the rules of each of the Clearing Agencies. Supra note 2. In this filing "Members" refers to both the Members of FICC and NSCC and the Participants of DTC.

<sup>4</sup> The parent company of the Clearing Agencies is The Depository Trust & Clearing Corporation ("DTCC"). DTCC operates on a shared services model with respect to the Clearing Agencies. Most corporate functions are established and managed on an enterprise-wide basis pursuant to intercompany agreements under which it is generally DTCC that provides a relevant service to a Clearing Agency.

<sup>5</sup> Rule 17Ad-22(e)(4) under the Act refers to these risks as "credit risks." 17 CFR 240.17Ad-22(e)(4), supra note 1. Because the Clearing Agencies refers to these risks as "market risks," the Framework would use these terms interchangeably.

<sup>6</sup> See 17 CFR 240.17Ad-22(e)(4)(iii). Supra note 1.

The Framework would describe the sources of prefunded financial resources of the Clearing Agencies for purposes of compliance with Rule 17Ad-22(e)(4).<sup>7</sup> With respect to FICC and NSCC, the Framework would describe that such prefunded financial resources are their respective clearing funds, which contain deposits from their Members pursuant to their respective rules consisting of both cash and eligible securities, with any eligible securities being subject to a haircut, as provided for under those rules.<sup>8</sup> The Framework would describe that such deposits are calculated for each individual Member pursuant to the GSD Rules, MBSD Rules, or NSCC Rules, as applicable, and each Member's deposits would be referred to in the Framework as its "Required Deposit."<sup>9</sup> With respect to DTC, the Framework would describe that its prefunded financial resources are cash deposits to its Participants Fund, made by its Members pursuant to the DTC Rules.<sup>10</sup> The Framework would also describe that DTC may use its risk management control, the "Collateral Monitor," to monitor and assure that the settlement obligations of each Member are fully collateralized.<sup>11</sup>

The Framework would describe the stress testing methodologies that are used by the Clearing Agencies to test the sufficiency of their total prefunded financial resources, described above, against potential losses, assuming the default of a Member with the largest credit exposure to a Clearing Agency and that Member's Affiliated Family under extreme but plausible market conditions. The Framework would state that the stress testing would be designed to identify potential weaknesses in the methodologies used to calculate Members' Required Deposits and to determine collateral haircuts.

The Framework would describe in detail the three key components of the development of stress testing methodologies, which include the following:

*Risk Identification.* The Clearing Agencies identify the principal credit risk drivers that are representative and specific to each Clearing Agency's clearing and/or collateral portfolio to determine risk exposures by analyzing the securities and risk exposures in their Members' clearing and/or collateral portfolios to identify representative principal market risk drivers and to capture the risk sensitivity of the clearing and/or collateral portfolios under stressed market conditions.

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<sup>7</sup> 17 CFR 240.17Ad-22(e)(4). Supra note 1.

<sup>8</sup> FICC/GSD Rule 4 (Clearing Fund and Loss Allocation), FICC/MBSD Rule 4 (Clearing Fund and Loss Allocation), and NSCC Rule 4 (Clearing Fund). Supra note 2.

<sup>9</sup> Id.

<sup>10</sup> DTC Rule 4 (Participants Fund and Participants Investment). Supra note 2.

<sup>11</sup> "Collateral Monitor" is defined in DTC Rule 1, Section 1 (Definitions), and its calculation is further provided for in the DTC Settlement Service Guide of the DTC Rules. Supra note 2.

*Scenario Development.* The Clearing Agencies construct comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for the identified risk drivers. The Framework would describe how the Clearing Agencies develop and select both historical and hypothetical scenarios that reflect stressed market conditions. Historical scenarios are based on stressed market conditions that occurred on specific dates in the past. Hypothetical stress scenarios are theoretical market conditions that could conceivably occur.

*Risk Measurement and Aggregation.* The Clearing Agencies calculate the risk metrics of each Clearing Agency's actual portfolio to estimate the profits and losses ("P&L") of close out over a suitable stressed period of risk, deficiencies, and coverage ratios. The Framework would describe how the Clearing Agencies develop P&L estimation methodologies, and how they calculate risk metrics that are applicable to such methodologies under the chosen stress testing scenarios. Risk metrics may include, without limitation, deficiency and coverage ratios. The Clearing Agencies may use a number of P&L methodologies for stress testing purposes, including risk sensitivity, index mapping, and actual or approximate historical shock approaches.

The Framework would define "Member stress deficiency" for each scenario as, with respect to FICC and NSCC, the stress loss exceeding the applicable Member's Required Deposits, and for DTC, the shortfall of a Member's Collateral Monitor. The Framework would also define "Affiliated Family deficiency" as the aggregate of all Member stress deficiencies within the applicable Affiliated Family. Finally, the Framework would define "Cover One Ratio" as the ratio of Affiliated Family deficiency over the total value of the relevant Clearing Agency's clearing fund (or, for DTC, the Participants Fund), excluding the value of the applicable Affiliated Family's Required Deposits. The Framework would state that the Clearing Agencies calculate Member stress deficiencies, Affiliated Family deficiencies, and Cover One Ratios daily.

The Framework would state that FICC and NSCC consider other coverage ratios as well, such as comparing Member stress deficiencies against such Member's known financial resources (e.g., equity capital base), to keep abreast of potential financial vulnerabilities facing such Member. Additionally, the Framework would state that DTC also tests the adequacy of its collateral haircuts by measuring "Haircut Deficiency" as the amount of stress losses exceeding the haircut applied to collateral securities.

The Framework would state that the Clearing Agencies also apply wrong-way risk scenarios to measure both specific and generic wrong-way risk for each Clearing Agency's Members and Affiliated Families. Such scenarios reflect the default of a Member's Affiliated Family, and the potential impacts of that default to all securities in the Affiliated Family's clearing or collateral portfolios, as well as the potential general market impacts of that default to other securities. The Framework would describe the reverse stress testing analyses that are performed by FICC and NSCC on at least a semi-annual basis. These analyses provide FICC and NSCC, as central counterparties, another means for testing the sufficiency of the Clearing Agencies' respective prefunded financial resources. In conducting reverse stress testing, FICC and NSCC utilize scenarios of multiple defaults, extreme market shocks or shocks for other risk

factors, which would cause those Clearing Agencies, as applicable, to exhaust all of their respective prefunded financial resources.

The Framework would describe the Clearing Agencies' stress testing governance and execution processes. Stress testing is conducted daily for each of the Clearing Agencies, and stress testing risk metrics are also generated each day. Stress testing results of Cover One Ratios and Member stress deficiencies of certain Members are monitored against pre-established thresholds.<sup>12</sup> Breaches of these pre-established thresholds are initially subject to more detailed studies to identify any potential impact to the applicable Clearing Agencies' Cover One Requirement. The Framework would describe that, to the extent such studies indicate a potential impact to a Clearing Agency's Cover One Requirement, the threshold breach would be escalated internally and analyzed to determine if either there is a need to adjust the stress testing methodology, or if the threshold breach indicates an issue with a particular Member. Based on these analyses, the Clearing Agencies determine the appropriate course of action, which could include options available under their respective rules.

The Framework would describe that the Clearing Agencies conduct comprehensive analyses of daily stress testing results, the existing scenario sets (including any changes to such scenarios for the period since the last review), and the performance of the methodologies along with key underlying parameters and assumptions. These analyses are performed at least monthly and are conducted to assess whether each Clearing Agency's stress testing components are appropriate for determining the sufficiency of its prefunded financial resources in light of current and evolving market conditions. The Framework would state that such analyses may occur more frequently than monthly if, for example, the products cleared or markets served by a Clearing Agency display high volatility or become less liquid, or when the size or concentration of positions held by the applicable Clearing Agency's Members increases significantly.

The Framework would state that the results of these analyses are reviewed monthly by the DTCC Enterprise Stress Testing Council. The Framework would also state that daily stress testing results are summarized and reported monthly to the DTCC Risk Management Committee. Finally, the Framework would state that stress testing methodologies and related models are subject to independent model validation on at least an annual basis.

(b) Statutory Basis

The Clearing Agencies believe that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. In particular, the Clearing Agencies believe that the Framework is consistent with Section 17A(b)(3)(F) of the Act,<sup>13</sup> as well as Rule 17Ad-22(b)(3),<sup>14</sup> and the subsections

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<sup>12</sup> Risk threshold levels are chosen to assist each Clearing Agency in achieving a high degree of confidence that its Cover One Requirement is met daily.

<sup>13</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>14</sup> 17 CFR 240.17Ad-22(b)(3).

cited below of Rule 17Ad-22(e)(4),<sup>15</sup> each promulgated under the Act, for the reasons described below.

Section 17A(b)(3)(F) of the Act requires, in part, that the rules of a registered clearing agency be designed to promote the prompt and accurate clearance and settlement of securities transactions, and to assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible.<sup>16</sup> As described in greater detail above, the Framework would describe how the Clearing Agencies have developed and carry out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to the Cover One Requirement. As such, the credit risk management strategy of the Clearing Agencies addresses their credit exposures and allows them to continue the prompt and accurate clearance and settlement of securities and can continue to assure the safeguarding of securities and funds which are in their custody or control or for which they are responsible notwithstanding those risks. Therefore, the Clearing Agencies believe the Framework, which describes how the Clearing Agencies carry out this strategy, is consistent with the requirements of Section 17A(b)(3)(F) of the Act.<sup>17</sup>

Rule 17Ad-22(b)(3) under the Act requires, in part, that a registered clearing agency that performs central counterparty services establish, implement, maintain and enforce written policies and procedures reasonably designed to, among other things, maintain sufficient financial resources to withstand, at a minimum, a default by the participant family to which it has the largest exposure in extreme but plausible market conditions.<sup>18</sup> As described above, the Framework would describe how both FICC and NSCC have developed and carry out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to the Cover One Requirement. By carrying out their credit risk management strategy and conducting this daily stress testing to test the sufficiency of their prefunded financial resources, FICC and NSCC believe the Framework is consistent with Rule 17Ad-22(b)(3).<sup>19</sup>

The proposed rule change is also designed to be consistent with Rule 17Ad-22(e)(4) under the Act, which requires, in part, that each covered clearing agency establish, implement,

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<sup>15</sup> 17 CFR 240.17Ad-22(e)(4). Supra note 1.

<sup>16</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>17</sup> Id.

<sup>18</sup> 17 CFR 240.17Ad-22(b)(3).

<sup>19</sup> Id.

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.<sup>20</sup> The Clearing Agencies believe the Framework is designed to meet the requirements of the following subsections of Rule 17Ad-22(e)(4),<sup>21</sup> cited below, for the reasons described below.

Rule 17Ad-22(e)(4)(i) under the Act requires that a covered clearing agency maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.<sup>22</sup> Rule 17Ad-22(e)(4)(iii) under the Act requires that, to the extent not already maintained pursuant to Rule 17Ad-22(e)(4)(i) under the Act, for a covered clearing agency not subject to Rule 17Ad-22(e)(4)(ii) under the Act, a covered clearing agency maintain additional financial resources at the minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions.<sup>23</sup> The Framework would describe how the Clearing Agencies have developed and carry out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to the Cover One Requirement. The Framework would also describe how each Clearing Agency tests the sufficiency of its prefunded resources daily to support compliance with this requirement. As such, the Clearing Agencies believe the Framework is designed to meet the requirements of Rule 17Ad-22(e)(4)(i) and (iii) under the Act.<sup>24</sup>

Rule 17Ad-22(e)(4)(iv) under the Act requires that a covered clearing agency include prefunded financial resources, exclusive of assessments for additional guaranty fund contributions or other resources that are not prefunded, when calculating financial resources available to meet the standards under Rule 17Ad-22(e)(4)(i) through (iii) under the Act, as applicable.<sup>25</sup> The Framework would identify the sources of prefunded resources of each Clearing Agency for purposes of meeting its requirements under Rule 17Ad-22(e)(4)(iii), and further would state that the stress testing used to test the sufficiency of those resources do not test other

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<sup>20</sup> 17 CFR 240.17Ad-22(e)(4)(i), and (iii) through (vii). Supra note 1.

<sup>21</sup> 17 CFR 240.17Ad-22(e)(4). Supra note 1.

<sup>22</sup> 17 CFR 240.17Ad-22(e)(4)(i). Supra note 1.

<sup>23</sup> 17 CFR 240.17Ad-22(e)(4)(iii). Supra note 1.

<sup>24</sup> 17 CFR 240.17Ad-22(e)(4)(i) and (iii). Supra note 1.

<sup>25</sup> 17 CFR 240.17Ad-22(e)(4)(iv). Supra note 1.

resources that are not prefunded. Therefore, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(4)(iv) under the Act.<sup>26</sup>

Rule 17Ad-22(e)(4)(v) under the Act requires that a covered clearing agency maintain the financial resources under Rule 17Ad-22(e)(4)(ii) and (iii) under the Act, in combined or separately maintained clearing or guaranty funds.<sup>27</sup> The Framework would identify the sources of prefunded resources of each Clearing Agency for purposes of meeting its requirements under Rule 17Ad-22(e)(4)(iii) as their Members' deposits to, with respect to NSCC and FICC, their respective clearing funds, and, with respect to DTC, deposits to its Participants Fund. Therefore, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(v) under the Act.<sup>28</sup>

Rule 17Ad-22(e)(4)(vi)(A) under the Act requires that a covered clearing agency conduct stress testing of its total financial resources once each day using standard predetermined parameters and assumptions.<sup>29</sup> The Framework would describe how the Clearing Agencies conduct stress tests on a daily basis, and would describe how the Clearing Agencies develop the stress testing methodologies for these tests. Specifically, the Framework would describe how the stress testing methodologies are developed through risk identification, scenario development, and risk measurement and aggregation. The Framework would also state that the stress testing methodologies are reviewed and analyzed monthly to determine if the components continue to be appropriate for determining sufficiency of the Clearing Agencies' prefunded financial resources. Therefore, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(4)(vi)(A) under the Act.<sup>30</sup>

Rule 17Ad-22(e)(4)(vi)(B) under the Act requires that a covered clearing agency conduct a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and consider modifications to ensure they are appropriate for determining the covered clearing agency's required level of default protection in light of current and evolving market conditions.<sup>31</sup> Rule 17Ad-22(e)(4)(vi)(C) under the Act requires that a covered clearing agency conduct a comprehensive analysis of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by the covered clearing agency's participants

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<sup>26</sup> Id.

<sup>27</sup> 17 CFR 240.17Ad-22(e)(4)(v). Supra note 1.

<sup>28</sup> Id.

<sup>29</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(A). Supra note 1.

<sup>30</sup> Id.

<sup>31</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(B). Supra note 1.

increases significantly.<sup>32</sup> The Framework would describe that the Clearing Agencies conduct comprehensive analyses of daily stress testing results, the existing scenario sets, and the performance of the methodology along with key underlying parameters and assumptions. The Framework would also state that these analyses are performed at least monthly, and may occur more frequently than monthly if, for example, the products cleared or markets served by a Clearing Agency display high volatility or become less liquid, or when the size or concentration of positions held by the applicable Clearing Agency's Members increases significantly. The Framework would state that these analyses are designed to assess whether each Clearing Agency's stress testing components are appropriate for determining the sufficiency of its prefunded financial resources in light of current and evolving market conditions. As such, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(4)(vi)(B) and (C) under the Act.<sup>33</sup>

Rule 17Ad-22(e)(4)(vi)(D) under the Act requires that a covered clearing agency report the results of its analyses under Rule 17Ad-22(e)(4)(vi)(B) and (C) to appropriate decision makers at the covered clearing agency, including but not limited to, its risk management committee or board of directors, and use these results to evaluate the adequacy of and adjust its margin methodology, model parameters, models used to generate clearing or guaranty fund requirements, and any other relevant aspects of its credit risk management framework, in supporting compliance with the minimum financial resources requirements set forth in Rule 17Ad-22(e)(4)(i) through (iii) under the Act.<sup>34</sup> The Framework would provide that the results of the analyses described above are reviewed monthly by the DTCC Enterprise Stress Testing Council. The Framework would also state that this group would consider these results to evaluate the adequacy of the stress testing methodologies and would determine if adjustments to the stress testing methodologies are appropriate to support the Clearing Agencies' compliance with the minimum financial resources requirements set forth in Rule 17Ad-22(e)(4)(i) through (iii) under the Act. Additionally, the Framework would state that daily stress testing results are summarized and reported monthly to the DTCC Risk Management Committee. Based on their review of the information provided, this committee may determine to inform or further escalate any concerns to the Risk Committees of the Boards, as they deem necessary. Therefore, the Clearing Agencies believe that the Framework is consistent with Rule 17Ad-22(e)(vi)(D) under the Act.<sup>35</sup>

Rule 17Ad-22(e)(4)(vii) under the Act requires a covered clearing agency to perform a model validation for its credit risk models not less than annually or more frequently as may be contemplated by the covered clearing agency's risk management framework established pursuant

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<sup>32</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(C). Supra note 1.

<sup>33</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(B) and (C). Supra note 1.

<sup>34</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(D). Supra note 1.

<sup>35</sup> Id.

to Rule 17Ad-22(e)(3) under the Act.<sup>36</sup> The Framework would provide that the Clearing Agencies' stress testing methodologies and models are subject to independent model validation on at least an annual basis thereafter. Therefore, the Clearing Agencies believe that the Framework supports compliance with Rule 17Ad-22(e)(4)(vii) under the Act.<sup>37</sup>

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

None of the Clearing Agencies believe that the Framework would have any impact, or impose any burden, on competition because the proposed rule change reflects the existing framework that each of the Clearing Agencies employ to manage its market risk, and would not effectuate changes to the Clearing Agencies' stress testing methodologies, or to the remedial action the Clearing Agencies may take in response to the results thereof, as they currently apply to Members.

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

The Clearing Agencies have not solicited or received any written comments relating to this proposal. The Clearing Agencies will notify the Commission of any written comments received by the Clearing Agencies.

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

The Clearing Agencies do not consent to an extension of the time period specified in Section 19(b)(2) of the Act for Commission action.<sup>38</sup>

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

- (a) Not applicable.
- (b) Not applicable.
- (c) Not applicable.
- (d) Not applicable.

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<sup>36</sup> 17 CFR 240.17Ad-22(e)(4)(vii). Supra note 1.

<sup>37</sup> Id.

<sup>38</sup> 15 U.S.C. 78s(b)(2).

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

While the proposed rule change is not based on the rules of another self-regulatory organization or of the Commission, the Framework is applicable to each of the Clearing Agencies, and each of the Clearing Agencies has filed similar proposed rule changes concurrently with this filing.

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

Not applicable.

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

Not applicable.

**11. Exhibits**

Exhibit 1 – Not applicable.

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

Exhibit 2 – Not applicable.

Exhibit 3 – Not applicable.

Exhibit 4 – Not applicable.

Exhibit 5 – Clearing Agency Stress Testing Framework (Market Risk). **Omitted and filed separately with the Commission. Confidential treatment of this Exhibit 5 being requested pursuant to 17 CFR 240.24b-2.**

**EXHIBIT 1A**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-[\_\_\_\_\_]; File No. SR-NSCC-2017-006)

[DATE]

Self-Regulatory Organizations; National Securities Clearing Corporation; Notice of Filing of a Proposed Rule Change to Adopt the Clearing Agency Stress Testing Framework (Market Risk)

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934, as amended (“Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on April \_\_, 2017, National Securities Clearing Corporation (“NSCC”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I, II and III below, which Items have been prepared by the clearing agency. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The proposed rule change would adopt the Clearing Agency Stress Testing Framework (Market Risk) (“Framework”) of NSCC and its affiliates, The Depository Trust Company (“DTC”) and Fixed Income Clearing Corporation (“FICC,” and together with NSCC and DTC, the “Clearing Agencies”), described below. The Framework would apply to both of FICC’s divisions, the Government Securities Division (“GSD”) and the Mortgage-Backed Securities Division (“MBSD”). The Framework would be

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

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

maintained by the Clearing Agencies in compliance with Rule 17Ad-22(e)(4)(i), (iii) through (vii), under the Act, as described below.<sup>3</sup>

Although the Clearing Agencies would consider the Framework to be a rule, the proposed rule change does not require any changes to the Rules, By-Laws and Organizational Certificate of DTC (“DTC Rules”), the Rulebook of GSD (“GSD Rules”), the Clearing Rules of MBSD (“MBSD Rules”), or the Rules & Procedures of NSCC (“NSCC Rules”), as the Framework would be a standalone document.<sup>4</sup>

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

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

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<sup>3</sup> 17 CFR 240.17Ad-22(e)(4)(i), and (iii) through (vii). The Commission adopted amendments to Rule 17Ad-22, including the addition of new section 17Ad-22(e), on September 28, 2016. See Securities Exchange Act Release No. 78961 (September 28, 2016), 81 FR 70786 (October 13, 2016) (S7-03-14). Each of the Clearing Agencies is a “covered clearing agency” as defined in Rule 17Ad-22(a)(5), and must comply with new section (e) of Rule 17Ad-22 by April 11, 2017.

<sup>4</sup> Capitalized terms not defined herein are defined in the DTC Rules, GSD Rules, MBSD Rules, or NSCC Rules, as applicable, available at <http://dtcc.com/legal/rules-and-procedures>.

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

1. Purpose

The Clearing Agencies are proposing to adopt the Framework, which would set forth the manner in which each Clearing Agency effectively identifies, measures, monitors and manages its credit exposures to Members<sup>5</sup> and those arising from its payment, clearing, and settling processes, as applicable. In general, the Framework would describe the stress testing practices adopted by the Clearing Agencies that are designed to ensure the sufficiency of each Clearing Agency's total prefunded financial resources, as described in greater detail below. The Framework would describe (i) the sources of each Clearing Agency's total prefunded financial resources; (ii) the Clearing Agencies' stress testing methodologies; (iii) the Clearing Agencies' stress testing governance and execution processes; and (iv) the Clearing Agencies' model validation practices. The Framework would address stress testing of each Clearing Agency's total prefunded financial resources, and would not address assessments for additional contributions or other resources that are not prefunded and may be available to the Clearing Agencies. The Framework would be owned and managed by the Data and Portfolio Analytics group within the Quantitative Risk Management department.<sup>6</sup>

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<sup>5</sup> FICC and NSCC refer to their participants as "Members," while DTC refers to its participants as "Participants." These terms are defined in the rules of each of the Clearing Agencies. *Supra* note 4. In this filing "Members" refers to both the Members of FICC and NSCC and the Participants of DTC.

<sup>6</sup> The parent company of the Clearing Agencies is The Depository Trust & Clearing Corporation ("DTCC"). DTCC operates on a shared services model with respect to the Clearing Agencies. Most corporate functions are established and managed on an enterprise-wide basis pursuant to intercompany agreements under which it is generally DTCC that provides a relevant service to a Clearing Agency.

The Framework would first outline the regulatory requirements that apply to each Clearing Agency with respect to credit risk management, and then would describe how the Clearing Agencies address those requirements. The Framework would describe the credit risk management strategy of each of the Clearing Agencies,<sup>7</sup> which is to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the affiliated family (“Affiliated Family”) of Members that would potentially cause the largest aggregate credit exposure to the Clearing Agency in extreme but plausible market conditions (“Cover One Requirement”).<sup>8</sup> Because the credit risks and prefunded financial resources of the Clearing Agencies are different in certain respects, the Framework would describe the prefunded financial resources and related stress testing methodologies of the Clearing Agencies separately, where applicable.

The Framework would describe the sources of prefunded financial resources of the Clearing Agencies for purposes of compliance with Rule 17Ad-22(e)(4).<sup>9</sup> With respect to FICC and NSCC, the Framework would describe that such prefunded financial resources are their respective clearing funds, which contain deposits from their Members pursuant to their respective rules consisting of both cash and eligible securities, with any

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<sup>7</sup> Rule 17Ad-22(e)(4) under the Act refers to these risks as “credit risks.” 17 CFR 240.17Ad-22(e)(4), supra note 3. Because the Clearing Agencies refers to these risks as “market risks,” the Framework would use these terms interchangeably.

<sup>8</sup> See 17 CFR 240.17Ad-22(e)(4)(iii). Supra note 3.

<sup>9</sup> 17 CFR 240.17Ad-22(e)(4). Supra note 3.

eligible securities being subject to a haircut, as provided for under those rules.<sup>10</sup> The Framework would describe that such deposits are calculated for each individual Member pursuant to the GSD Rules, MBSD Rules, or NSCC Rules, as applicable, and each Member's deposits would be referred to in the Framework as its "Required Deposit."<sup>11</sup> With respect to DTC, the Framework would describe that its prefunded financial resources are cash deposits to its Participants Fund, made by its Members pursuant to the DTC Rules.<sup>12</sup> The Framework would also describe that DTC may use its risk management control, the "Collateral Monitor," to monitor and assure that the settlement obligations of each Member are fully collateralized.<sup>13</sup>

The Framework would describe the stress testing methodologies that are used by the Clearing Agencies to test the sufficiency of their total prefunded financial resources, described above, against potential losses, assuming the default of a Member with the largest credit exposure to a Clearing Agency and that Member's Affiliated Family under extreme but plausible market conditions. The Framework would state that the stress testing would be designed to identify potential weaknesses in the methodologies used to calculate Members' Required Deposits and to determine collateral haircuts.

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<sup>10</sup> FICC/GSD Rule 4 (Clearing Fund and Loss Allocation), FICC/MBSD Rule 4 (Clearing Fund and Loss Allocation), and NSCC Rule 4 (Clearing Fund). Supra note 4.

<sup>11</sup> Id.

<sup>12</sup> DTC Rule 4 (Participants Fund and Participants Investment). Supra note 4.

<sup>13</sup> "Collateral Monitor" is defined in DTC Rule 1, Section 1 (Definitions), and its calculation is further provided for in the DTC Settlement Service Guide of the DTC Rules. Supra note 4.

The Framework would describe in detail the three key components of the development of stress testing methodologies, which include the following:

*Risk Identification.* The Clearing Agencies identify the principal credit risk drivers that are representative and specific to each Clearing Agency's clearing and/or collateral portfolio to determine risk exposures by analyzing the securities and risk exposures in their Members' clearing and/or collateral portfolios to identify representative principal market risk drivers and to capture the risk sensitivity of the clearing and/or collateral portfolios under stressed market conditions.

*Scenario Development.* The Clearing Agencies construct comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for the identified risk drivers. The Framework would describe how the Clearing Agencies develop and select both historical and hypothetical scenarios that reflect stressed market conditions. Historical scenarios are based on stressed market conditions that occurred on specific dates in the past. Hypothetical stress scenarios are theoretical market conditions that could conceivably occur.

*Risk Measurement and Aggregation.* The Clearing Agencies calculate the risk metrics of each Clearing Agency's actual portfolio to estimate the profits and losses ("P&L") of close out over a suitable stressed period of risk, deficiencies, and coverage ratios. The Framework would describe how the Clearing Agencies develop P&L estimation methodologies, and how they calculate risk metrics that are applicable to such methodologies under the chosen stress testing scenarios.

Risk metrics may include, without limitation, deficiency and coverage ratios. The

Clearing Agencies may use a number of P&L methodologies for stress testing purposes, including risk sensitivity, index mapping, and actual or approximate historical shock approaches.

The Framework would define “Member stress deficiency” for each scenario as, with respect to FICC and NSCC, the stress loss exceeding the applicable Member’s Required Deposits, and for DTC, the shortfall of a Member’s Collateral Monitor. The Framework would also define “Affiliated Family deficiency” as the aggregate of all Member stress deficiencies within the applicable Affiliated Family. Finally, the Framework would define “Cover One Ratio” as the ratio of Affiliated Family deficiency over the total value of the relevant Clearing Agency’s clearing fund (or, for DTC, the Participants Fund), excluding the value of the applicable Affiliated Family’s Required Deposits. The Framework would state that the Clearing Agencies calculate Member stress deficiencies, Affiliated Family deficiencies, and Cover One Ratios daily.

The Framework would state that FICC and NSCC consider other coverage ratios as well, such as comparing Member stress deficiencies against such Member’s known financial resources (e.g., equity capital base), to keep abreast of potential financial vulnerabilities facing such Member. Additionally, the Framework would state that DTC also tests the adequacy of its collateral haircuts by measuring “Haircut Deficiency” as the amount of stress losses exceeding the haircut applied to collateral securities.

The Framework would state that the Clearing Agencies also apply wrong-way risk scenarios to measure both specific and generic wrong-way risk for each Clearing Agency’s Members and Affiliated Families. Such scenarios reflect the default of a Member’s Affiliated Family, and the potential impacts of that default to all securities in

the Affiliated Family's clearing or collateral portfolios, as well as the potential general market impacts of that default to other securities. The Framework would describe the reverse stress testing analyses that are performed by FICC and NSCC on at least a semi-annual basis. These analyses provide FICC and NSCC, as central counterparties, another means for testing the sufficiency of the Clearing Agencies' respective prefunded financial resources. In conducting reverse stress testing, FICC and NSCC utilize scenarios of multiple defaults, extreme market shocks or shocks for other risk factors, which would cause those Clearing Agencies, as applicable, to exhaust all of their respective prefunded financial resources.

The Framework would describe the Clearing Agencies' stress testing governance and execution processes. Stress testing is conducted daily for each of the Clearing Agencies, and stress testing risk metrics are also generated each day. Stress testing results of Cover One Ratios and Member stress deficiencies of certain Members are monitored against pre-established thresholds.<sup>14</sup> Breaches of these pre-established thresholds are initially subject to more detailed studies to identify any potential impact to the applicable Clearing Agencies' Cover One Requirement. The Framework would describe that, to the extent such studies indicate a potential impact to a Clearing Agency's Cover One Requirement, the threshold breach would be escalated internally and analyzed to determine if either there is a need to adjust the stress testing methodology, or if the threshold breach indicates an issue with a particular Member. Based on these analyses, the Clearing Agencies determine the appropriate course of action, which could include options available under their respective rules.

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<sup>14</sup> Risk threshold levels are chosen to assist each Clearing Agency in achieving a high degree of confidence that its Cover One Requirement is met daily.

The Framework would describe that the Clearing Agencies conduct comprehensive analyses of daily stress testing results, the existing scenario sets (including any changes to such scenarios for the period since the last review), and the performance of the methodologies along with key underlying parameters and assumptions. These analyses are performed at least monthly and are conducted to assess whether each Clearing Agency's stress testing components are appropriate for determining the sufficiency of its prefunded financial resources in light of current and evolving market conditions. The Framework would state that such analyses may occur more frequently than monthly if, for example, the products cleared or markets served by a Clearing Agency display high volatility or become less liquid, or when the size or concentration of positions held by the applicable Clearing Agency's Members increases significantly.

The Framework would state that the results of these analyses are reviewed monthly by the DTCC Enterprise Stress Testing Council. The Framework would also state that daily stress testing results are summarized and reported monthly to the DTCC Risk Management Committee. Finally, the Framework would state that stress testing methodologies and related models are subject to independent model validation on at least an annual basis.

## 2. Statutory Basis

The Clearing Agencies believe that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. In particular, the Clearing Agencies believe that the Framework is consistent with Section 17A(b)(3)(F) of the Act,<sup>15</sup> as well as Rule 17Ad-

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

22(b)(3),<sup>16</sup> and the subsections cited below of Rule 17Ad-22(e)(4),<sup>17</sup> each promulgated under the Act, for the reasons described below.

Section 17A(b)(3)(F) of the Act requires, in part, that the rules of a registered clearing agency be designed to promote the prompt and accurate clearance and settlement of securities transactions, and to assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible.<sup>18</sup> As described in greater detail above, the Framework would describe how the Clearing Agencies have developed and carry out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to the Cover One Requirement. As such, the credit risk management strategy of the Clearing Agencies addresses their credit exposures and allows them to continue the prompt and accurate clearance and settlement of securities and can continue to assure the safeguarding of securities and funds which are in their custody or control or for which they are responsible notwithstanding those risks. Therefore, the Clearing Agencies believe the Framework, which describes how the Clearing Agencies carry out this strategy, is consistent with the requirements of Section 17A(b)(3)(F) of the Act.<sup>19</sup>

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<sup>16</sup> 17 CFR 240.17Ad-22(b)(3).

<sup>17</sup> 17 CFR 240.17Ad-22(e)(4). Supra note 3.

<sup>18</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>19</sup> Id.

Rule 17Ad-22(b)(3) under the Act requires, in part, that a registered clearing agency that performs central counterparty services establish, implement, maintain and enforce written policies and procedures reasonably designed to, among other things, maintain sufficient financial resources to withstand, at a minimum, a default by the participant family to which it has the largest exposure in extreme but plausible market conditions.<sup>20</sup> As described above, the Framework would describe how both FICC and NSCC have developed and carry out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to the Cover One Requirement. By carrying out their credit risk management strategy and conducting this daily stress testing to test the sufficiency of their prefunded financial resources, FICC and NSCC believe the Framework is consistent with Rule 17Ad-22(b)(3).<sup>21</sup>

The proposed rule change is also designed to be consistent with Rule 17Ad-22(e)(4) under the Act, which requires, in part, 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.<sup>22</sup> The Clearing Agencies believe the Framework is designed to meet the requirements of the

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<sup>20</sup> 17 CFR 240.17Ad-22(b)(3).

<sup>21</sup> Id.

<sup>22</sup> 17 CFR 240.17Ad-22(e)(4)(i), and (iii) through (vii). Supra note 3.

following subsections of Rule 17Ad-22(e)(4),<sup>23</sup> cited below, for the reasons described below.

Rule 17Ad-22(e)(4)(i) under the Act requires that a covered clearing agency maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.<sup>24</sup> Rule 17Ad-22(e)(4)(iii) under the Act requires that, to the extent not already maintained pursuant to Rule 17Ad-22(e)(4)(i) under the Act, for a covered clearing agency not subject to Rule 17Ad-22(e)(4)(ii) under the Act, a covered clearing agency maintain additional financial resources at the minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions.<sup>25</sup> The Framework would describe how the Clearing Agencies have developed and carry out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to the Cover One Requirement. The Framework would also describe how each Clearing Agency tests the sufficiency of its prefunded resources daily to support compliance with this requirement. As such, the Clearing Agencies believe the

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<sup>23</sup> 17 CFR 240.17Ad-22(e)(4). Supra note 3.

<sup>24</sup> 17 CFR 240.17Ad-22(e)(4)(i). Supra note 3.

<sup>25</sup> 17 CFR 240.17Ad-22(e)(4)(iii). Supra note 3.

Framework is designed to meet the requirements of Rule 17Ad-22(e)(4)(i) and (iii) under the Act.<sup>26</sup>

Rule 17Ad-22(e)(4)(iv) under the Act requires that a covered clearing agency include prefunded financial resources, exclusive of assessments for additional guaranty fund contributions or other resources that are not prefunded, when calculating financial resources available to meet the standards under Rule 17Ad-22(e)(4)(i) through (iii) under the Act, as applicable.<sup>27</sup> The Framework would identify the sources of prefunded resources of each Clearing Agency for purposes of meeting its requirements under Rule 17Ad-22(e)(4)(iii), and further would state that the stress testing used to test the sufficiency of those resources do not test other resources that are not prefunded. Therefore, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(4)(iv) under the Act.<sup>28</sup>

Rule 17Ad-22(e)(4)(v) under the Act requires that a covered clearing agency maintain the financial resources under Rule 17Ad-22(e)(4)(ii) and (iii) under the Act, in combined or separately maintained clearing or guaranty funds.<sup>29</sup> The Framework would identify the sources of prefunded resources of each Clearing Agency for purposes of meeting its requirements under Rule 17Ad-22(e)(4)(iii) as their Members' deposits to, with respect to NSCC and FICC, their respective clearing funds, and, with respect to

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<sup>26</sup> 17 CFR 240.17Ad-22(e)(4)(i) and (iii). Supra note 3.

<sup>27</sup> 17 CFR 240.17Ad-22(e)(4)(iv). Supra note 3.

<sup>28</sup> Id.

<sup>29</sup> 17 CFR 240.17Ad-22(e)(4)(v). Supra note 3.

DTC, deposits to its Participants Fund. Therefore, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(v) under the Act.<sup>30</sup>

Rule 17Ad-22(e)(4)(vi)(A) under the Act requires that a covered clearing agency conduct stress testing of its total financial resources once each day using standard predetermined parameters and assumptions.<sup>31</sup> The Framework would describe how the Clearing Agencies conduct stress tests on a daily basis, and would describe how the Clearing Agencies develop the stress testing methodologies for these tests. Specifically, the Framework would describe how the stress testing methodologies are developed through risk identification, scenario development, and risk measurement and aggregation. The Framework would also state that the stress testing methodologies are reviewed and analyzed monthly to determine if the components continue to be appropriate for determining sufficiency of the Clearing Agencies' prefunded financial resources. Therefore, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(4)(vi)(A) under the Act.<sup>32</sup>

Rule 17Ad-22(e)(4)(vi)(B) under the Act requires that a covered clearing agency conduct a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and consider modifications to ensure they are appropriate for determining the covered clearing agency's required level of default protection in light of current and evolving market

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<sup>30</sup> Id.

<sup>31</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(A). Supra note 3.

<sup>32</sup> Id.

conditions.<sup>33</sup> Rule 17Ad-22(e)(4)(vi)(C) under the Act requires that a covered clearing agency conduct a comprehensive analysis of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by the covered clearing agency's participants increases significantly.<sup>34</sup> The Framework would describe that the Clearing Agencies conduct comprehensive analyses of daily stress testing results, the existing scenario sets, and the performance of the methodology along with key underlying parameters and assumptions. The Framework would also state that these analyses are performed at least monthly, and may occur more frequently than monthly if, for example, the products cleared or markets served by a Clearing Agency display high volatility or become less liquid, or when the size or concentration of positions held by the applicable Clearing Agency's Members increases significantly. The Framework would state that these analyses are designed to assess whether each Clearing Agency's stress testing components are appropriate for determining the sufficiency of its prefunded financial resources in light of current and evolving market conditions. As such, the Clearing Agencies believe the Framework is consistent with Rule 17Ad-22(e)(4)(vi)(B) and (C) under the Act.<sup>35</sup>

Rule 17Ad-22(e)(4)(vi)(D) under the Act requires that a covered clearing agency report the results of its analyses under Rule 17Ad-22(e)(4)(vi)(B) and (C) to appropriate decision makers at the covered clearing agency, including but not limited to, its risk

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<sup>33</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(B). Supra note 3.

<sup>34</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(C). Supra note 3.

<sup>35</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(B) and (C). Supra note 3.

management committee or board of directors, and use these results to evaluate the adequacy of and adjust its margin methodology, model parameters, models used to generate clearing or guaranty fund requirements, and any other relevant aspects of its credit risk management framework, in supporting compliance with the minimum financial resources requirements set forth in Rule 17Ad-22(e)(4)(i) through (iii) under the Act.<sup>36</sup>

The Framework would provide that the results of the analyses described above are reviewed monthly by the DTCC Enterprise Stress Testing Council. The Framework would also state that this group would consider these results to evaluate the adequacy of the stress testing methodologies and would determine if adjustments to the stress testing methodologies are appropriate to support the Clearing Agencies' compliance with the minimum financial resources requirements set forth in Rule 17Ad-22(e)(4)(i) through (iii) under the Act. Additionally, the Framework would state that daily stress testing results are summarized and reported monthly to the DTCC Risk Management Committee. Based on their review of the information provided, this committee may determine to inform or further escalate any concerns to the Risk Committees of the Boards, as they deem necessary. Therefore, the Clearing Agencies believe that the Framework is consistent with Rule 17Ad-22(e)(vi)(D) under the Act.<sup>37</sup>

Rule 17Ad-22(e)(4)(vii) under the Act requires a covered clearing agency to perform a model validation for its credit risk models not less than annually or more frequently as may be contemplated by the covered clearing agency's risk management

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<sup>36</sup> 17 CFR 240.17Ad-22(e)(4)(vi)(D). Supra note 3.

<sup>37</sup> Id.

framework established pursuant to Rule 17Ad-22(e)(3) under the Act.<sup>38</sup> The Framework would provide that the Clearing Agencies' stress testing methodologies and models are subject to independent model validation on at least an annual basis thereafter. Therefore, the Clearing Agencies believe that the Framework supports compliance with Rule 17Ad-22(e)(4)(vii) under the Act.<sup>39</sup>

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

None of the Clearing Agencies believes that the Framework would have any impact, or impose any burden, on competition because the proposed rule change reflects the existing framework that each of the Clearing Agencies employ to manage its market risk, and would not effectuate changes to the Clearing Agencies' stress testing methodologies, or to the remedial action the Clearing Agencies may take in response to the results thereof, as they currently apply to Members.

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

The Clearing Agencies have not solicited or received any written comments relating to this proposal. The Clearing Agencies will notify the Commission of any written comments received by the Clearing Agencies.

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

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds

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<sup>38</sup> 17 CFR 240.17Ad-22(e)(4)(vii). Supra note 3.

<sup>39</sup> Id.

such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the clearing agency consents, the Commission will:

- (A) by order approve or disapprove such proposed rule change, or
- (B) institute proceedings to determine whether the proposed rule change should be disapproved.

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

#### IV. Solicitation of Comments

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

##### Electronic Comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-NSCC-2017-006 on the subject line.

##### Paper Comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549.

All submissions should refer to File Number SR-NSCC-2017-006. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website

(<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of NSCC and on DTCC's website (<http://dtcc.com/legal/sec-rule-filings.aspx>). All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-NSCC-2017-006 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>40</sup>

Secretary

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<sup>40</sup> 17 CFR 200.30-3(a)(12).

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