

OMB APPROVAL

OMB Number: 3235-0045
 Estimated average burden
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Required fields are shown with yellow backgrounds and asterisks.

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

File No.* SR - 2020 - * 010

Amendment No. (req. for Amendments *)

Filing by Fixed Income Clearing Corporation

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

Initial * ☒ Amendment * ☐ Withdrawal ☐ Section 19(b)(2) * ☒ Section 19(b)(3)(A) * ☐ Section 19(b)(3)(B) * ☐

Rule

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

☐ 19b-4(f)(1) ☐ 19b-4(f)(4)
☐ 19b-4(f)(2) ☐ 19b-4(f)(5)
☐ 19b-4(f)(3) ☐ 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) * ☐ Section 806(e)(2) * ☐

Section 3C(b)(2) * ☐

Exhibit 2 Sent As Paper Document



Exhibit 3 Sent As Paper Document



Description

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

Describe Key Components of the Mortgage-Backed Securities Division Stress Testing Program

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 * Donaldine Last Name * Temple
 Title * Executive Director and Associate General Counsel
 E-mail * dtemple@dtcc.com
 Telephone * (212) 855-3277 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 08/11/2020

By Nikki Poulos

(Name *)

Managing Director and Deputy General Counsel

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

npoulos@dtcc.com

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549	
For complete Form 19b-4 instructions please refer to the EFFT website.	
<div>Form 19b-4 Information *</div> <div><div>Add</div><div>Remove</div><div>View</div></div>	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.
<div>Exhibit 1 - Notice of Proposed Rule Change *</div> <div><div>Add</div><div>Remove</div><div>View</div></div>	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)
<div>Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies *</div> <div><div>Add</div><div>Remove</div><div>View</div></div>	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)
<div>Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications</div> <div><div>Add</div><div>Remove</div><div>View</div></div> <div>Exhibit Sent As Paper Document <input type="checkbox"/></div>	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.
<div>Exhibit 3 - Form, Report, or Questionnaire</div> <div><div>Add</div><div>Remove</div><div>View</div></div> <div>Exhibit Sent As Paper Document <input type="checkbox"/></div>	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.
<div>Exhibit 4 - Marked Copies</div> <div><div>Add</div><div>Remove</div><div>View</div></div>	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.
<div>Exhibit 5 - Proposed Rule Text</div> <div><div>Add</div><div>Remove</div><div>View</div></div>	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.
<div>Partial Amendment</div> <div><div>Add</div><div>Remove</div><div>View</div></div>	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 Fixed Income Clearing Corporation (“FICC” or the “Corporation”) is attached hereto as Exhibit 5 and consists of a proposal to amend the FICC Mortgage-Backed Securities Division (“MBSD”) Clearing Rules (“MBSD Rules”)¹ to include a new section that would describe the key components of MBSD’s stress testing program. This section would also disclose FICC’s proposal to (1) utilize vendor-supplied historical risk factor² time series data (“Historical Data”) and vendor-supplied security-level risk sensitivity³ data (“Security-Level Data”)⁴ in the stress testing

¹ Capitalized terms used herein and not otherwise defined shall have the meanings assigned to such terms in the MBSD Rules, available at www.dtcc.com/legal/rules-and-procedures.aspx.

² Generally, the term “risk factor” (or “risk driver”) means an attribute, characteristic, variable or other concrete determinant that influences the risk profile of a system, entity, or financial asset. Risk factors may be causes of risk or merely correlated with risk.

³ The term “sensitivity” means the percentage value change of a security given each risk factor change.

⁴ FICC would receive the following data from the vendor:

- interest rate (including 11 tenors) measures the sensitivity of a price change to changes in interest rates;
- convexity measures the degree of curvature in the price/yield relationship of key interest rates (convexity would not be utilized in the scenarios selection process; it would only be utilized in the stress profit and loss calculation);
- mortgage option adjusted spread is the yield spread that is added to a benchmark yield curve to discount a TBA’s cash flows to match its market price, which takes into account a credit premium and the option-like feature of mortgage-backed-securities due to prepayment;
- interest rate volatility reflects the implied volatility observed from the swaption market to estimate fluctuations in interest rates; and
- mortgage basis captures the basis risk between the prevailing mortgage rate and a blended U.S. Treasury rate, which impacts borrowers’ refinance incentives and the model prepayment assumptions.

The Historical Data would include (1) interest rate, (2) mortgage option adjusted spread, (3) interest rate volatility, and (4) mortgage basis.

program⁵ and (2) implement a back-up calculation that MBSD would utilize in the event that the vendor fails to provide such data to MBSD.⁶ The proposed changes are further described below.⁷

The Security-Level Data would include (1) sensitivity to interest rates, (2) convexity, (3) sensitivity to mortgage option adjusted spread, (4) sensitivity to interest rate volatility, and (5) sensitivity to mortgage basis.

FICC does not believe that its current engagement of the vendor would present a conflict of interest because the vendor is not an existing Clearing Member nor are any of the vendor's affiliates existing Clearing Members. To the extent that the vendor or any of its affiliates applies to become a Clearing Member, FICC will negotiate an appropriate information barrier with the applicant in an effort to prevent a conflict of interest from arising. An affiliate of the vendor currently provides an existing service to FICC; however, this arrangement does not present a conflict of interest because the existing agreement between FICC and the vendor, and the existing agreement between FICC and the vendor's affiliate, each contains provisions that limit the sharing of confidential information.

⁵ FICC currently utilizes the Historical Data and Security-Level Data in MBSD's value-at-risk ("VaR") model, which calculates the VaR Charge component in each Clearing Member's margin (referred to in the MBSD Rules as Required Fund Deposit). See MBSD Rule 1, Definitions – VaR Charge, supra note 1. FICC is proposing to use this same data set in MBSD's stress testing program.

⁶ FICC's proposal to (1) include the Historical Data and Security-Level Data in MBSD's stress testing program and (2) implement a back-up calculation in the event that the vendor fails to provide such data is described in an advance notice filing that FICC filed with the Securities and Exchange Commission (the "Commission"). See Securities Exchange Act Release No. 88382 (March 13, 2020), 85 FR 15830 (March 19, 2020) (SR-FICC-2020-801).

⁷ On January 21, 2020, FICC filed this proposed rule change as an advance notice with the Commission pursuant to Section 806(e)(1) of Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010, 12 U.S.C. 5465(e)(1), and Rule 19b-4(n)(1)(i) under the Securities Exchange Act of 1934 ("Act"), 17 CFR 240.19b-4(n)(1)(i) (the "Advance Notice Filing"). See Release No. 88266 (February 24, 2020), 85 FR 11413 (February 27, 2020) (SR-FICC-2020-801). The Commission issued a notice of no objection to the Advance Notice Filing on March 13, 2020. See Release No. 88382 (March 13, 2020), 85 FR 15830 (March 19, 2020) (SR-FICC-2020-801). A copy of the Advance Notice Filing and the Commission's notice of no objection are available at <http://www.dtcc.com/legal/sec-rule-filings.aspx>.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The filing of this proposed rule change was approved by the Risk Committee of FICC's Board of Directors on February 13, 2018.

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

(a) Purpose

FICC is proposing to include a new section in the MBSD Rules that would describe the key components of MBSD's stress testing program. This section would also include FICC's proposal to (1) utilize Historical Data and Security-Level Data in the stress testing program, and (2) implement a back-up calculation that MBSD would utilize in the event that the vendor fails to provide such data to MBSD. The proposed changes are further described below.

A. Background

MBSD provides trade comparison, netting, risk management, settlement, and central counterparty services for the U.S. mortgage-backed securities market. FICC manages its credit exposures to its Clearing Members by collecting an appropriate amount of margin (referred to in the MBSD Rules as Required Fund Deposit) from each Clearing Member.⁸ The aggregate of all Clearing Members' margin amounts (together with certain other deposits required under the MBSD Rules) constitutes MBSD's Clearing Fund, which FICC would access should a Clearing Member default with insufficient margin to satisfy any FICC losses caused by the liquidation of the defaulting member's portfolio.⁹

In contrast to FICC's margin methodologies, which are designed to limit FICC's credit exposures under normal market conditions, FICC conducts daily stress testing that is designed to (1) test the sufficiency of the Clearing Fund against FICC's potential losses assuming the default of a Clearing Member with the largest credit exposure and its entire affiliated family (that are also Clearing Members) ("Affiliated Family") under extreme but plausible market conditions, and (2) identify both (x) Clearing Members who may pose a greater market risk under certain market conditions, and (y) potential weaknesses in FICC's margin methodologies. As a result, stress testing is an essential component of FICC's risk management because FICC uses it to test the sufficiency of its prefunded financial resources.

⁸ See MBSD Rule 4, supra note 1.

⁹ Id.

FICC's stress testing program is described in the *Clearing Agency Stress Testing Framework (Market Risk)*¹⁰ (the "Framework"), which is maintained in compliance with Rule 17Ad-22(e)(4)(i), and (iii) through (vii), under the Act.¹¹ The Framework describes (1) the sources of the total prefunded financial resources, (2) the key components of the stress testing program, (3) the stress testing governance and execution processes, and (4) the model validation practices.¹² The Framework is a rule, though it is a standalone document that has been filed confidentially with the Commission, and it applies to FICC and its affiliates, The Depository Trust Company and National Securities Clearing Corporation.¹³

B. Proposal to include a new section in the MBSD Rules that describes the key components of MBSD's stress testing program

FICC is proposing to include a new section in the MBSD Rules that would describe MBSD's stress testing program. FICC is proposing this change because the new section would add transparency to MBSD's stress testing program given that the Framework is a confidential document. The new section would describe the three key components of MBSD's stress testing program, which are as follows:¹⁴

- (i) *Risk Identification.* FICC identifies the principal credit/market risk drivers that are representative and specific to each Clearing Member's clearing portfolio to determine risk exposures by analyzing the securities and risk exposures in such Members' clearing portfolios to identify representative principal market risk drivers and to capture the risk sensitivity of such clearing portfolios under stressed market conditions.
- (ii) *Scenario Development.* FICC constructs comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for the identified risk drivers. Historical scenarios are based on stressed market conditions that occurred on specific dates in the past. Hypothetical stress scenarios are based on theoretical market conditions that may not actually have occurred

¹⁰ See Securities Exchange Act Release No. 82368 (December 19, 2017), 82 FR 61082 (December 26, 2017) (SR-FICC-2017-009; SR-DTC-2017-005; SR-NSCC-2017-006) ("Framework Approval Order").

¹¹ See 17 CFR 240.17Ad-22(e)(4)(i), and (iii) through (vii).

¹² See Framework Approval Order, *supra* note 10.

¹³ The term "rule" refers to the "rules of a self-regulatory organization" as defined in Section 3(a)(28) of the Act. See 15 U.S.C. 78c(a)(28).

¹⁴ Id.

but could conceivably occur. FICC applies the historical and hypothetical scenarios to Clearing Members' portfolio positions.

- (iii) *Risk Measurement and Aggregation.* FICC calculates risk metrics for each Clearing Member's actual portfolio to estimate the profits and losses in connection with such Clearing Member's close out under the chosen stress scenarios.

C. Proposal to utilize vendor-supplied data in MBSD's stress testing program

In connection with FICC's stress testing program, FICC is proposing to use vendor-supplied data in MBSD's Scenario Development process, and Risk Measurement and Aggregation process.

(1) *Proposal to use Historical Data in the Scenario Development process*

As described in Section B. above, the *Scenario Development* process is a key component of MBSD's stress testing program and it involves FICC's construction of comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for identified risk drivers.¹⁵ In its development of historical stress scenarios, FICC is proposing to examine Historical Data to identify the largest historical changes of risk factors that influence the pricing of mortgage-backed securities. FICC would obtain the Historical Data from a vendor.

FICC is proposing to use Historical Data because it believes that this data would better explain the market price changes of TBA transactions cleared by MBSD.¹⁶ In addition, FICC believes that the data would (1) identify stress risk exposures under broader and more varied market conditions and (2) provide MBSD with an enhanced capability to design more transparent scenarios. Because Clearing Members typically use risk factor analysis for their own risk and financial reporting, such Members would have comparable data and analysis to stress test their portfolios. Thus, Clearing Members would be able to simulate their stressed portfolios to a closer degree.

¹⁵ Id.

¹⁶ Specified Pool Trades and Stipulated Trades are mapped to the corresponding TBAs. FICC's guarantee of Option Contracts on TBAs is limited to the intrinsic value of the option positions, meaning that, when the underlying price of the TBA position is above the call price, the Option Contract is considered in-the-money and FICC's guarantee reflects this portion of the Option Contract's positive value at the time of a Clearing Member's insolvency. The value change of an Option Contract's position is simulated as the change in its intrinsic value. No changes are being proposed to MBSD's treatment of Specified Pool Trades, Stipulated Trades and Option Contracts pursuant to this proposal.

As noted above, FICC's use of Historical Data in connection with the development of MBSD's historical stress scenarios would be disclosed in the proposed new section of the MBSD Rules that describes the stress testing program.

(2) *Proposal to use Historical Data and Security-Level Data in the Risk Measurement and Aggregation component*

As described in section B. above, the *Risk Measurement and Aggregation* process calculates risk metrics for each Clearing Member's actual portfolio to estimate the profits and losses in connection with such Clearing Member's close out under chosen stress scenarios. In connection with this calculation, FICC is proposing to use a financial profit-and-loss calculation that leverages the Historical Data and the Security-Level Data. The Security-Level Data is generated using the vendor's suite of security valuation models that includes an agency mortgage prepayment model and interest rate term structure model.¹⁷ FICC believes that the vendor's approach generates more stable and robust Security-Level Data. Because the stress profits and losses calculation would include Security-Level Data, FICC believes that the calculated results would be improved and would reflect results that are closer to actual price changes for TBA securities during larger market moves which are typical of stress testing scenarios.

FICC's use of Historical Data and Security-Level Data would be disclosed in the proposed new section of the MBSD Rules which describes the stress testing program.

D. Proposal to include a back-up calculation in the MBSD Rules

FICC is proposing to implement a back-up calculation that it would use in the event the vendor fails to provide data to FICC.¹⁸ Specifically, if the vendor fails to provide any data or a

¹⁷ A prepayment model captures cash flow uncertainty as a result of unscheduled payments of principal (prepayments). An interest rate term structure model describes the relationship between interest rates of different maturities.

¹⁸ This is consistent with the Advance Notice Filing, which states the following:

If the vendor fails to provide any data or a significant portion of the data in accordance with the timeframes agreed to by FICC and the vendor, FICC would use the most recently available data on the first day that such disruption occurs. Subject to discussions with the vendor, if a Managing Director, who oversees Market Risk Management, determines that the vendor would resume providing data within five (5) business days, such Managing Director would determine whether the daily stress testing calculation should continue to be calculated by using the most recently available data or whether the back-up calculation . . . should be invoked, subject to the approval of DTCC's Group Chief Risk Officer or his/her designee. Subject to discussions with the vendor, if a Managing Director, who oversees Market Risk Management, determines that the data disruption would extend beyond five (5) business days, the back-up calculation would

significant portion of data in accordance with the timeframes agreed to by FICC and the vendor, FICC would use the most recently available data on the first day that such disruption occurs. Subject to discussions with the vendor, if FICC determines that the vendor would resume providing data within five (5) Business Days, FICC would determine whether the daily stress testing calculation should continue to be calculated by using the most recently available data or whether the back-up calculation (as described below) should be invoked.¹⁹ Subject to discussions with the vendor, if FICC determines that the data disruption would extend beyond five (5) Business Days, the back-up calculation would be employed for daily stress testing, subsequent to the approval of FICC's designated internal authority.

The proposed back-up calculation would be as follows: MBSD would (1) calculate each Clearing Member's portfolio net exposures in four securitization programs,²⁰ (2) calculate the historical stress return for each securitization program as the three-day price return for each securitization program index for each scenario date, and (3) calculate each Clearing Member's stress profits and losses as the sum of the products of the net exposure of each securitization program and the stress return value for each securitization program. FICC would use publicly available indices as the data source for the stress return calculations.²¹ This calculation would be referred to as the Back-up Stress Testing Calculation.

FICC's use of the proposed back-up calculation would be disclosed in the proposed new section of the MBSD Rules that describes the stress testing program.

FICC's due diligence relating to the vendor-supplied data

FICC feels comfortable using the vendor-supplied data in MBSD's stress testing program because it is the same data that FICC currently uses in connection with its MBSD VaR model. Prior to MBSD's use of this data in its VaR model, FICC reviewed a description of the vendor's calculation methodology and the way the market data is used to calibrate the vendor's models.

be applied, subsequent to the approval of DTCC's Management Risk Committee, followed by notification to the Board Risk Committee.

See Advance Notice Filing, supra note 7, at 11416.

¹⁹ For the avoidance of doubt, after taking into consideration the vendor's condition and, to the extent applicable, market conditions, FICC may invoke the back-up calculation sooner.

²⁰ The securitization programs are as follows: (1) Fannie Mae and Freddie Mac conventional 30-year mortgage-backed securities, (2) Ginnie Mae 30-year mortgage-backed securities, (3) Fannie Mae and Freddie Mac conventional 15-year mortgage-backed securities, and (4) Ginnie Mae 15-year mortgage-backed securities.

²¹ The proposed calculation is similar to MBSD's calculation of the Margin Proxy, which is the back-up calculation that MBSD will use to calculate the VaR Charge in the event of a vendor data disruption. See MBSD Rule 1, Definitions – Margin Proxy, supra note 1.

At that time, DTCC's Quantitative Risk Management, Vendor Risk Management, and Information Technology teams conducted due diligence of the vendor in order to evaluate its control framework for managing key risks.²² FICC's due diligence included an assessment of the vendor's technology risk, business continuity, regulatory compliance, and privacy controls. Because of FICC's due diligence and its use of the vendor data in connection with the calculation of MBSD's margin model, FICC understands and remains comfortable with the vendor's controls. In addition, DTCC's Data Integrity department manages the data that FICC receives including, but not limited to, market data and analytical data provided by vendors.²³ As a result, FICC feels comfortable with leveraging the Historical Data and the Security-Level Data for purposes of MBSD's stress testing program.

E. Proposed Changes to the MBSD Rules

Proposed Change to MBSD Rule 1 – Definitions

FICC is proposing to include a new defined term referred to as "Back-up Stress Testing Calculation." This term would be defined as a back-up method for calculating the stress profits and losses of each portfolio when the vendor fails to provide data to FICC. The definition would state that FICC shall (1) calculate each Clearing Member's portfolio net exposures in four securitization programs,²⁴ (2) calculate the historical stress return for each securitization program as the three-day price return for each securitization program index for each scenario date, and (3) calculate each Clearing Member's stress profits and losses as the sum of the products of the net exposure of each securitization program and the stress return value for each securitization

²² DTCC is FICC's parent company. DTCC operates on a shared services model with respect to FICC. Most corporate functions are established and managed on an enterprise-wide basis pursuant to intercompany agreements under which DTCC generally provides a relevant service to FICC.

²³ DTCC's Data Integrity department oversees data integrity on behalf of DTCC's Counterparty Credit, Market, and Liquidity Risk Management groups as well as the Securities Valuation, Model Validation and Control, and Quantitative Risk Management groups (collectively, Financial Risk Management ("FRM")), and the Systemic Risk Office. The Data Integrity department's mission is to align with FRM, and ensure that the highest data quality is managed for the purpose of lowering risk and improving efficiency within FRM. The Data Integrity department's prime directive consists of the following: (1) ensuring a data governance framework is established and adhered to within FRM; (2) ensuring sufficient integrity of key data sources through active rules-based data monitoring; (3) ensuring sufficient alerting is in place to inform necessary parties when data anomalies occur; (4) liaising with subject matter experts to resolve data anomalies in an efficient and effective manner; and (5) ensuring that critical FRM data is catalogued and defined in the enterprise data dictionary.

²⁴ See supra note 20.

program. Further, the definition would state that FICC shall use publicly available indices as the data source for the stress return calculations.

Proposed Change to MBSD Rule 4 – Clearing Fund and Loss Allocation

FICC is proposing to amend MBSD Rule 4 to include a new section referred to as “Section 13 – Stress Testing.”

This new section would include a subsection entitled “(a) Stress Testing Program.” This subsection would state that FICC uses stress testing to (1) test the sufficiency of the Clearing Fund against FICC’s potential losses assuming the default of a Clearing Member with the largest credit exposure and its entire Affiliated Family under extreme but plausible market conditions, and (2) identify both (x) Clearing Members who may pose a greater market risk under certain market conditions, and (y) potential weaknesses in FICC’s margin methodologies. This subsection would also state that FICC’s stress testing program is comprised of the following three key components.

- (i) *Risk Identification.* FICC identifies the principal credit/market risk drivers that are representative and specific to each Clearing Member’s clearing portfolio to determine risk exposures by analyzing the securities and risk exposures in such Members’ clearing portfolios to identify representative principal market risk drivers and to capture the risk sensitivity of such clearing portfolios under stressed market conditions.
- (ii) *Scenario Development.* FICC constructs comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for the identified risk drivers. Historical scenarios are based on stressed market conditions that occurred on specific dates in the past. FICC uses Historical Data in the development of the historical scenarios. Hypothetical stress scenarios are based on theoretical market conditions that may not actually have occurred but could conceivably occur. FICC then applies the historical and hypothetical scenarios to Clearing Members’ portfolio positions.
- (iii) *Risk Measurement and Aggregation.* FICC calculates risk metrics for each Clearing Member’s actual portfolio to estimate the profits and losses in connection with such Clearing Member’s close out under the chosen stress scenarios. FICC uses Historical Data and Security-Level Data in its calculation of profits and losses for Clearing Members’ portfolios.

This subsection would state that FICC receives the Historical Data and the Security-Level Data from a vendor.

This new section would also include a subsection entitled “(b) Back-up Stress Testing Calculation.” The new subsection would state that in the event that the vendor fails to provide any data or a significant portion of the data, FICC will use the most recently available data on the

first day that such disruption occurs. Subject to discussions with the vendor, if FICC determines that the vendor would resume providing data within five (5) Business Days, FICC would determine whether the daily stress testing calculation should continue to be calculated by using the most recently available data or whether the Back-up Stress Testing Calculation should be invoked.²⁵ Subject to discussions with the vendor, if FICC determines that the data disruption would extend beyond five (5) Business Days, the Back-up Stress Testing Calculation would be employed for daily stress testing, subsequent to the approval of FICC's designated internal authority.

F. Delayed implementation of the proposed rule change

The proposed rule change would become operative within 45 Business Days after the Commission's approval of this proposed rule change. Prior to the effective date, FICC would add legends to the MBSD Rules to state that the specified changes to the MBSD Rules have been approved but not yet implemented, and to provide the date such approved changes would be implemented. The legends would also include the file number of the approved proposed rule change and state that once implemented, the legends would automatically be removed from the MBSD Rules.

(b) Statutory Basis

As described above, FICC is proposing to include a new section in the MBSD Rules that would describe the key components of MBSD's stress testing program. This new section would include FICC's proposal to utilize (x) Historical Data in the development of historical scenarios and (y) Historical Data and Security-Level Data in the calculation of stress profits and losses. In addition, the section would include FICC's proposal to implement a back-up calculation that it would use in the event the vendor fails to provide data. FICC believes that the proposed changes are consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. In particular, FICC believes that the proposed changes are consistent with Section 17A(b)(3)(F) of the Act,²⁶ and Rule 17Ad-22(e)(4) under the Act,²⁷ 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.²⁸ As described above, the proposal would reflect the manner in which FICC has developed and carries out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully FICC's credit

²⁵ See supra note 19.

²⁶ 15 U.S.C. 78q-1(b)(3)(F).

²⁷ 17 CFR 240.17Ad-22(e)(4).

²⁸ 15 U.S.C. 78q-1(b)(3)(F).

exposures to each Clearing 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 extreme but plausible market conditions. As such, FICC's credit risk management strategy addresses its credit exposures and gives FICC the ability to continue the prompt and accurate clearance and settlement of securities and assure the safeguarding of securities and funds which are in FICC's custody or control or for which it is responsible notwithstanding those risks. Therefore, FICC believes that the proposed new section of the MBSD Rules, which describes how FICC carries out this strategy, is consistent with the requirements of Section 17A(b)(3)(F) of the Act.²⁹

The proposal is designed to be consistent with Rule 17Ad-22(e)(4) under the Act, which requires, in part, that a 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.³⁰ 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.³¹ The proposal is consistent with Rule 17Ad-22(e)(4)(i) because it describes how FICC has developed and carries out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully FICC's credit exposures to each Clearing Member with a high degree of confidence.

As described above, FICC believes that the proposal to include the three key components of MBSD's stress testing program and a back-up calculation in the MBSD Rules would reflect the manner in which FICC has developed and carries out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Clearing Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable FICC to cover a wide range of foreseeable stress scenarios that include, but are not limited to, extreme but plausible market conditions. FICC believes that the proposal to utilize Historical Data in the development of historical stress scenarios would incorporate a broad range of risk factors that enables MBSD's model to better understand a Clearing Member's exposure to these risk factors. FICC also believes that the proposal to utilize Historical Data and Security-Level Data in the calculation of stress profits and losses for Clearing Members' portfolios would provide for calculated amounts that are closer to actual price changes for TBA securities during larger market moves in an effort to test the adequacy of MBSD's prefunded resources. Lastly, FICC believes that the proposal to use a back-up calculation would help to ensure that FICC has a methodology in place that allows it to continue to measure the adequacy of MBSD's prefunded financial resources in the event that the vendor fails to provide data. For these reason, FICC believes that the proposed changes would improve MBSD's stress testing program, which is used to test the sufficiency of MBSD's

²⁹ Id.

³⁰ 17 CFR 240.17Ad-22(e)(4).

³¹ 17 CFR 240.17Ad-22(e)(4)(i).

prefunded resources daily to support compliance with Rule 17Ad-22(e)(4)(i). As such, FICC believes that, taken together, the proposed changes are designed to be consistent with the requirements of Rule 17Ad-22(e)(4)(i) under the Act.³²

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.³³ FICC believes that the proposal to (1) include the three key components of MBSD's stress testing program in the MBSD Rules, (2) utilize Historical Data in the historical scenario development process, (3) utilize Security-Level Data and Historical Data in the calculation of stress profits and losses for Clearing Members' portfolios, and (4) implement a back-up calculation in the event the vendor fails to provide data would reflect standard predetermined parameters and assumptions that FICC would use in MBSD's stress testing program to conduct daily stress testing.

FICC believes that the proposal would reflect its use of standard predetermined parameters and assumptions in FICC's daily stress testing of its financial resources in order to support compliance with Rule 17Ad-22(e)(4)(vi)(A) under the Act.³⁴ As such, FICC believes that, taken together, the provisions as reflected in the proposed new section of the MBSD Rules are designed to be consistent with the requirements of Rule 17Ad-22(e)(4)(vi)(A) under the Act.³⁵

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

FICC does not believe that the proposal would have any impact, or impose any burden, on competition because the proposal does not affect the respective rights or obligations of Members that utilize MBSD's services.

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

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

³² Id.

³³ 17 CFR 240.17Ad-22(e)(4)(vi)(A). The Framework identifies the sources of MBSD's prefunded resources for purposes of meeting FICC's requirements under Rule 17Ad-22(e)(4)(iii).

³⁴ Id.

³⁵ 17 CFR 240.17Ad-22(e)(4)(vi)(A).

6. Extension of Time Period for Commission Action

FICC does not consent to an extension of the time period specified in Section 19(b)(2) of the Act³⁶ for Commission action.

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

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

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

Not applicable.

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

Not applicable.

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

Not applicable.

11. Exhibits

Exhibit 1 – Not applicable.

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

Exhibit 2 – Not applicable.

Exhibit 3 – Methodology Document – MBSD Market and Credit Risk Stress Test Models. *Omitted and filed separately with the Commission. Confidential treatment of this Exhibit 3 being requested pursuant to 17 CFR 240.24b-2.*

Exhibit 4 – Not applicable.

Exhibit 5 – Proposed changes to the MBSD Rules.

³⁶ 15 U.S.C. 78q-1(b)(2).

EXHIBIT 1A

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-[____]; File No. SR-FICC-2020-010)

[DATE]

Self-Regulatory Organizations; Fixed Income Clearing Corporation; Notice of Filing of Proposed Rule Change to Describe Key Components of the Mortgage-Backed Securities Division Stress Testing Program

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹ and Rule 19b-4 thereunder,² notice is hereby given that on July __, 2020, Fixed Income Clearing Corporation (“FICC”) 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 consists of a proposal to amend the FICC Mortgage-Backed Securities Division (“MBSD”) Clearing Rules (“MBSD Rules”)³ to include a new section that would describe the key components of MBSD’s stress testing program. This section would also disclose FICC’s proposal to (1) utilize vendor-supplied historical risk factor⁴

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ Capitalized terms used herein and not otherwise defined shall have the meanings assigned to such terms in the MBSD Rules, available at www.dtcc.com/legal/rules-and-procedures.aspx.

⁴ Generally, the term “risk factor” (or “risk driver”) means an attribute, characteristic, variable or other concrete determinant that influences the risk profile of a system, entity, or financial asset. Risk factors may be causes of risk or merely correlated with risk.

time series data (“Historical Data”) and vendor-supplied security-level risk sensitivity⁵ data (“Security-Level Data”)⁶ in the stress testing program⁷ and (2) implement a back-up

⁵ The term “sensitivity” means the percentage value change of a security given each risk factor change.

⁶ FICC would receive the following data from the vendor:

- interest rate (including 11 tenors) measures the sensitivity of a price change to changes in interest rates;
- convexity measures the degree of curvature in the price/yield relationship of key interest rates (convexity would not be utilized in the scenarios selection process; it would only be utilized in the stress profit and loss calculation);
- mortgage option adjusted spread is the yield spread that is added to a benchmark yield curve to discount a TBA’s cash flows to match its market price, which takes into account a credit premium and the option-like feature of mortgage-backed-securities due to prepayment;
- interest rate volatility reflects the implied volatility observed from the swaption market to estimate fluctuations in interest rates; and
- mortgage basis captures the basis risk between the prevailing mortgage rate and a blended U.S. Treasury rate, which impacts borrowers’ refinance incentives and the model prepayment assumptions.

The Historical Data would include (1) interest rate, (2) mortgage option adjusted spread, (3) interest rate volatility, and (4) mortgage basis.

The Security-Level Data would include (1) sensitivity to interest rates, (2) convexity, (3) sensitivity to mortgage option adjusted spread, (4) sensitivity to interest rate volatility, and (5) sensitivity to mortgage basis.

FICC does not believe that its current engagement of the vendor would present a conflict of interest because the vendor is not an existing Clearing Member nor are any of the vendor’s affiliates existing Clearing Members. To the extent that the vendor or any of its affiliates applies to become a Clearing Member, FICC will negotiate an appropriate information barrier with the applicant in an effort to prevent a conflict of interest from arising. An affiliate of the vendor currently provides an existing service to FICC; however, this arrangement does not present a conflict of interest because the existing agreement between FICC and the vendor, and the existing agreement between FICC and the vendor’s affiliate, each contains provisions that limit the sharing of confidential information.

calculation that MBSD would utilize in the event that the vendor fails to provide such data to MBSD.⁸ The proposed changes are further described below.⁹

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.

⁷ FICC currently utilizes the Historical Data and Security-Level Data in MBSD's value-at-risk ("VaR") model, which calculates the VaR Charge component in each Clearing Member's margin (referred to in the MBSD Rules as Required Fund Deposit). See MBSD Rule 1, Definitions – VaR Charge, supra note 3. FICC is proposing to use this same data set in MBSD's stress testing program.

⁸ FICC's proposal to (1) include the Historical Data and Security-Level Data in MBSD's stress testing program and (2) implement a back-up calculation in the event that the vendor fails to provide such data is described in an advance notice filing that FICC filed with the Commission. See Securities Exchange Act Release No. 88382 (March 13, 2020), 85 FR 15830 (March 19, 2020) (SR-FICC-2020-801).

⁹ On January 21, 2020, FICC filed this proposed rule change as an advance notice with the Commission pursuant to Section 806(e)(1) of Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act entitled the Payment, Clearing, and Settlement Supervision Act of 2010, 12 U.S.C. 5465(e)(1), and Rule 19b-4(n)(1)(i) under the Act, 17 CFR 240.19b-4(n)(1)(i) (the "Advance Notice Filing"). See Release No. 88266 (February 24, 2020), 85 FR 11413 (February 27, 2020) (SR-FICC-2020-801). The Commission issued a notice of no objection to the Advance Notice Filing on March 13, 2020. See Release No. 88382 (March 13, 2020), 85 FR 15830 (March 19, 2020) (SR-FICC-2020-801). A copy of the Advance Notice Filing and the Commission's notice of no objection are available at <http://www.dtcc.com/legal/sec-rule-filings.aspx>.

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

1. Purpose

FICC is proposing to include a new section in the MBSD Rules that would describe the key components of MBSD's stress testing program. This section would also include FICC's proposal to (1) utilize Historical Data and Security-Level Data in the stress testing program, and (2) implement a back-up calculation that MBSD would utilize in the event that the vendor fails to provide such data to MBSD. The proposed changes are further described below.

A. Background

MBSD provides trade comparison, netting, risk management, settlement, and central counterparty services for the U.S. mortgage-backed securities market. FICC manages its credit exposures to its Clearing Members by collecting an appropriate amount of margin (referred to in the MBSD Rules as Required Fund Deposit) from each Clearing Member.¹⁰ The aggregate of all Clearing Members' margin amounts (together with certain other deposits required under the MBSD Rules) constitutes MBSD's Clearing Fund, which FICC would access should a Clearing Member default with insufficient margin to satisfy any FICC losses caused by the liquidation of the defaulting member's portfolio.¹¹

In contrast to FICC's margin methodologies, which are designed to limit FICC's credit exposures under normal market conditions, FICC conducts daily stress

¹⁰ See MBSD Rule 4, supra note 3.

¹¹ Id.

testing that is designed to (1) test the sufficiency of the Clearing Fund against FICC’s potential losses assuming the default of a Clearing Member with the largest credit exposure and its entire affiliated family (that are also Clearing Members) (“Affiliated Family”) under extreme but plausible market conditions, and (2) identify both (x) Clearing Members who may pose a greater market risk under certain market conditions, and (y) potential weaknesses in FICC’s margin methodologies. As a result, stress testing is an essential component of FICC’s risk management because FICC uses it to test the sufficiency of its prefunded financial resources.

FICC’s stress testing program is described in the *Clearing Agency Stress Testing Framework (Market Risk)*¹² (the “Framework”), which is maintained in compliance with Rule 17Ad-22(e)(4)(i), and (iii) through (vii), under the Act.¹³ The Framework describes (1) the sources of the total prefunded financial resources, (2) the key components of the stress testing program, (3) the stress testing governance and execution processes, and (4) the model validation practices.¹⁴ The Framework is a rule, though it is a standalone document that has been filed confidentially with the Commission, and it applies to FICC and its affiliates, The Depository Trust Company and National Securities Clearing Corporation.¹⁵

¹² See Securities Exchange Act Release No. 82368 (December 19, 2017), 82 FR 61082 (December 26, 2017) (SR-FICC-2017-009; SR-DTC-2017-005; SR-NSCC-2017-006) (“Framework Approval Order”).

¹³ See 17 CFR 240.17Ad-22(e)(4)(i), and (iii) through (vii).

¹⁴ See Framework Approval Order, supra note 12.

¹⁵ The term “rule” refers to the “rules of a self-regulatory organization” as defined in Section 3(a)(28) of the Act. See 15 U.S.C. 78c(a)(28).

B. Proposal to include a new section in the MBSD Rules that describes the key components of MBSD's stress testing program

FICC is proposing to include a new section in the MBSD Rules that would describe MBSD's stress testing program. FICC is proposing this change because the new section would add transparency to MBSD's stress testing program given that the Framework is a confidential document. The new section would describe the three key components of MBSD's stress testing program, which are as follows:¹⁶

(i) *Risk Identification.* FICC identifies the principal credit/market risk drivers that are representative and specific to each Clearing Member's clearing portfolio to determine risk exposures by analyzing the securities and risk exposures in such Members' clearing portfolios to identify representative principal market risk drivers and to capture the risk sensitivity of such clearing portfolios under stressed market conditions.

(ii) *Scenario Development.* FICC constructs comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for the identified risk drivers. Historical scenarios are based on stressed market conditions that occurred on specific dates in the past. Hypothetical stress scenarios are based on theoretical market conditions that may not actually have occurred but could conceivably occur. FICC applies the historical and hypothetical scenarios to Clearing Members' portfolio positions.

¹⁶ Id.

(iii) *Risk Measurement and Aggregation.* FICC calculates risk metrics for each Clearing Member's actual portfolio to estimate the profits and losses in connection with such Clearing Member's close out under the chosen stress scenarios.

C. Proposal to utilize vendor-supplied data in MBSD's stress testing program

In connection with FICC's stress testing program, FICC is proposing to use vendor-supplied data in MBSD's Scenario Development process, and Risk Measurement and Aggregation process.

(1) *Proposal to use Historical Data in the Scenario Development process*

As described in Section B. above, the *Scenario Development* process is a key component of MBSD's stress testing program and it involves FICC's construction of comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for identified risk drivers.¹⁷ In its development of historical stress scenarios, FICC is proposing to examine Historical Data to identify the largest historical changes of risk factors that influence the pricing of mortgage-backed securities. FICC would obtain the Historical Data from a vendor.

FICC is proposing to use Historical Data because it believes that this data would better explain the market price changes of TBA transactions cleared by MBSD.¹⁸ In addition, FICC believes that the data would (1) identify stress risk

¹⁷ Id.

¹⁸ Specified Pool Trades and Stipulated Trades are mapped to the corresponding TBAs. FICC's guarantee of Option Contracts on TBAs is limited to the intrinsic value of the option positions, meaning that, when the underlying price of the TBA position is above the call price, the Option Contract is considered in-the-money

exposures under broader and more varied market conditions and (2) provide MBSD with an enhanced capability to design more transparent scenarios. Because Clearing Members typically use risk factor analysis for their own risk and financial reporting, such Members would have comparable data and analysis to stress test their portfolios. Thus, Clearing Members would be able to simulate their stressed portfolios to a closer degree.

As noted above, FICC's use of Historical Data in connection with the development of MBSD's historical stress scenarios would be disclosed in the proposed new section of the MBSD Rules that describes the stress testing program.

(2) *Proposal to use Historical Data and Security-Level Data in the Risk Measurement and Aggregation component*

As described in section B. above, the *Risk Measurement and Aggregation* process calculates risk metrics for each Clearing Member's actual portfolio to estimate the profits and losses in connection with such Clearing Member's close out under chosen stress scenarios. In connection with this calculation, FICC is proposing to use a financial profit-and-loss calculation that leverages the Historical Data and the Security-Level Data. The Security-Level Data is generated using the vendor's suite of security valuation models that includes an agency mortgage prepayment model and interest rate term structure

and FICC's guarantee reflects this portion of the Option Contract's positive value at the time of a Clearing Member's insolvency. The value change of an Option Contract's position is simulated as the change in its intrinsic value. No changes are being proposed to MBSD's treatment of Specified Pool Trades, Stipulated Trades and Option Contracts pursuant to this proposal.

model.¹⁹ FICC believes that the vendor's approach generates more stable and robust Security-Level Data. Because the stress profits and losses calculation would include Security-Level Data, FICC believes that the calculated results would be improved and would reflect results that are closer to actual price changes for TBA securities during larger market moves which are typical of stress testing scenarios.

FICC's use of Historical Data and Security-Level Data would be disclosed in the proposed new section of the MBSD Rules which describes the stress testing program.

D. Proposal to include a back-up calculation in the MBSD Rules

FICC is proposing to implement a back-up calculation that it would use in the event the vendor fails to provide data to FICC.²⁰ Specifically, if the vendor fails to

¹⁹ A prepayment model captures cash flow uncertainty as a result of unscheduled payments of principal (prepayments). An interest rate term structure model describes the relationship between interest rates of different maturities.

²⁰ This is consistent with the Advance Notice Filing, which states the following:

If the vendor fails to provide any data or a significant portion of the data in accordance with the timeframes agreed to by FICC and the vendor, FICC would use the most recently available data on the first day that such disruption occurs. Subject to discussions with the vendor, if a Managing Director, who oversees Market Risk Management, determines that the vendor would resume providing data within five (5) business days, such Managing Director would determine whether the daily stress testing calculation should continue to be calculated by using the most recently available data or whether the back-up calculation . . . should be invoked, subject to the approval of DTCC's Group Chief Risk Officer or his/her designee. Subject to discussions with the vendor, if a Managing Director, who oversees Market Risk Management, determines that the data disruption would extend beyond five (5) business days, the back-up calculation would be applied, subsequent to the approval of DTCC's Management Risk Committee, followed by notification to the Board Risk Committee.

See Advance Notice Filing, supra note 9, at 11416.

provide any data or a significant portion of data in accordance with the timeframes agreed to by FICC and the vendor, FICC would use the most recently available data on the first day that such disruption occurs. Subject to discussions with the vendor, if FICC determines that the vendor would resume providing data within five (5) Business Days, FICC would determine whether the daily stress testing calculation should continue to be calculated by using the most recently available data or whether the back-up calculation (as described below) should be invoked.²¹ Subject to discussions with the vendor, if FICC determines that the data disruption would extend beyond five (5) Business Days, the back-up calculation would be employed for daily stress testing, subsequent to the approval of FICC's designated internal authority.

The proposed back-up calculation would be as follows: MBSD would (1) calculate each Clearing Member's portfolio net exposures in four securitization programs,²² (2) calculate the historical stress return for each securitization program as the three-day price return for each securitization program index for each scenario date, and (3) calculate each Clearing Member's stress profits and losses as the sum of the products of the net exposure of each securitization program and the stress return value for each securitization program. FICC would use publicly available indices as the data source for

²¹ For the avoidance of doubt, after taking into consideration the vendor's condition and, to the extent applicable, market conditions, FICC may invoke the back-up calculation sooner.

²² The securitization programs are as follows: (1) Fannie Mae and Freddie Mac conventional 30-year mortgage-backed securities, (2) Ginnie Mae 30-year mortgage-backed securities, (3) Fannie Mae and Freddie Mac conventional 15-year mortgage-backed securities, and (4) Ginnie Mae 15-year mortgage-backed securities.

the stress return calculations.²³ This calculation would be referred to as the Back-up Stress Testing Calculation.

FICC's use of the proposed back-up calculation would be disclosed in the proposed new section of the MBSD Rules that describes the stress testing program.

FICC's due diligence relating to the vendor-supplied data

FICC feels comfortable using the vendor-supplied data in MBSD's stress testing program because it is the same data that FICC currently uses in connection with its MBSD VaR model. Prior to MBSD's use of this data in its VaR model, FICC reviewed a description of the vendor's calculation methodology and the way the market data is used to calibrate the vendor's models. At that time, DTCC's Quantitative Risk Management, Vendor Risk Management, and Information Technology teams conducted due diligence of the vendor in order to evaluate its control framework for managing key risks.²⁴ FICC's due diligence included an assessment of the vendor's technology risk, business continuity, regulatory compliance, and privacy controls. Because of FICC's due diligence and its use of the vendor data in connection with the calculation of MBSD's margin model, FICC understands and remains comfortable with the vendor's controls. In addition, DTCC's Data Integrity department manages the data that FICC receives

²³ The proposed calculation is similar to MBSD's calculation of the Margin Proxy, which is the back-up calculation that MBSD will use to calculate the VaR Charge in the event of a vendor data disruption. See MBSD Rule 1, Definitions – Margin Proxy, supra note 3.

²⁴ DTCC is FICC's parent company. DTCC operates on a shared services model with respect to FICC. Most corporate functions are established and managed on an enterprise-wide basis pursuant to intercompany agreements under which DTCC generally provides a relevant service to FICC.

including, but not limited to, market data and analytical data provided by vendors.²⁵ As a result, FICC feels comfortable with leveraging the Historical Data and the Security-Level Data for purposes of MBSD's stress testing program.

E. Proposed Changes to the MBSD Rules

Proposed Change to MBSD Rule 1 – Definitions

FICC is proposing to include a new defined term referred to as “Back-up Stress Testing Calculation.” This term would be defined as a back-up method for calculating the stress profits and losses of each portfolio when the vendor fails to provide data to FICC. The definition would state that FICC shall (1) calculate each Clearing Member's portfolio net exposures in four securitization programs,²⁶ (2) calculate the historical stress return for each securitization program as the three-day price return for each securitization program index for each scenario date, and (3) calculate each Clearing Member's stress profits and losses as the sum of the products of the net exposure of each securitization program and the stress return value for each securitization program. Further, the

²⁵ DTCC's Data Integrity department oversees data integrity on behalf of DTCC's Counterparty Credit, Market, and Liquidity Risk Management groups as well as the Securities Valuation, Model Validation and Control, and Quantitative Risk Management groups (collectively, Financial Risk Management (“FRM”)), and the Systemic Risk Office. The Data Integrity department's mission is to align with FRM, and ensure that the highest data quality is managed for the purpose of lowering risk and improving efficiency within FRM. The Data Integrity department's prime directive consists of the following: (1) ensuring a data governance framework is established and adhered to within FRM; (2) ensuring sufficient integrity of key data sources through active rules-based data monitoring; (3) ensuring sufficient alerting is in place to inform necessary parties when data anomalies occur; (4) liaising with subject matter experts to resolve data anomalies in an efficient and effective manner; and (5) ensuring that critical FRM data is catalogued and defined in the enterprise data dictionary.

²⁶ See supra note 22.

definition would state that FICC shall use publicly available indices as the data source for the stress return calculations.

Proposed Change to MBSD Rule 4 – Clearing Fund and Loss Allocation

FICC is proposing to amend MBSD Rule 4 to include a new section referred to as “Section 13 – Stress Testing.”

This new section would include a subsection entitled “(a) Stress Testing Program.” This subsection would state that FICC uses stress testing to (1) test the sufficiency of the Clearing Fund against FICC’s potential losses assuming the default of a Clearing Member with the largest credit exposure and its entire Affiliated Family under extreme but plausible market conditions, and (2) identify both (x) Clearing Members who may pose a greater market risk under certain market conditions, and (y) potential weaknesses in FICC’s margin methodologies. This subsection would also state that FICC’s stress testing program is comprised of the following three key components.

(i) *Risk Identification.* FICC identifies the principal credit/market risk drivers that are representative and specific to each Clearing Member’s clearing portfolio to determine risk exposures by analyzing the securities and risk exposures in such Members’ clearing portfolios to identify representative principal market risk drivers and to capture the risk sensitivity of such clearing portfolios under stressed market conditions.

(ii) *Scenario Development.* FICC constructs comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for the identified risk drivers. Historical scenarios are based on

stressed market conditions that occurred on specific dates in the past.

FICC uses Historical Data in the development of the historical scenarios.

Hypothetical stress scenarios are based on theoretical market conditions that may not actually have occurred but could conceivably occur. FICC then applies the historical and hypothetical scenarios to Clearing Members' portfolio positions.

(iii) *Risk Measurement and Aggregation.* FICC calculates risk metrics for each Clearing Member's actual portfolio to estimate the profits and losses in connection with such Clearing Member's close out under the chosen stress scenarios. FICC uses Historical Data and Security-Level Data in its calculation of profits and losses for Clearing Members' portfolios.

This subsection would state that FICC receives the Historical Data and the Security-Level Data from a vendor.

This new section would also include a subsection entitled "(b) Back-up Stress Testing Calculation." The new subsection would state that in the event that the vendor fails to provide any data or a significant portion of the data, FICC will use the most recently available data on the first day that such disruption occurs. Subject to discussions with the vendor, if FICC determines that the vendor would resume providing data within five (5) Business Days, FICC would determine whether the daily stress testing calculation should continue to be calculated by using the most recently available data or whether the Back-up Stress Testing Calculation should be invoked.²⁷ Subject to

²⁷ See supra note 21.

discussions with the vendor, if FICC determines that the data disruption would extend beyond five (5) Business Days, the Back-up Stress Testing Calculation would be employed for daily stress testing, subsequent to the approval of FICC's designated internal authority.

F. Delayed implementation of the proposed rule change

The proposed rule change would become operative within 45 Business Days after the Commission's approval of this proposed rule change. Prior to the effective date, FICC would add legends to the MBSD Rules to state that the specified changes to the MBSD Rules have been approved but not yet implemented, and to provide the date such approved changes would be implemented. The legends would also include the file number of the approved proposed rule change and state that once implemented, the legends would automatically be removed from the MBSD Rules.

2. Statutory Basis

As described above, FICC is proposing to include a new section in the MBSD Rules that would describe the key components of MBSD's stress testing program. This new section would include FICC's proposal to utilize (x) Historical Data in the development of historical scenarios and (y) Historical Data and Security-Level Data in the calculation of stress profits and losses. In addition, the section would include FICC's proposal to implement a back-up calculation that it would use in the event the vendor fails to provide data. FICC believes that the proposed changes are consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. In particular, FICC believes that the proposed changes are

consistent with Section 17A(b)(3)(F) of the Act,²⁸ and Rule 17Ad-22(e)(4) under the Act,²⁹ 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.³⁰ As described above, the proposal would reflect the manner in which FICC has developed and carries out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully FICC's credit exposures to each Clearing 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 extreme but plausible market conditions. As such, FICC's credit risk management strategy addresses its credit exposures and gives FICC the ability to continue the prompt and accurate clearance and settlement of securities and assure the safeguarding of securities and funds which are in FICC's custody or control or for which it is responsible notwithstanding those risks. Therefore, FICC believes that the proposed new section of the MBSD Rules, which describes how FICC carries out this strategy, is consistent with the requirements of Section 17A(b)(3)(F) of the Act.³¹

²⁸ 15 U.S.C. 78q-1(b)(3)(F).

²⁹ 17 CFR 240.17Ad-22(e)(4).

³⁰ 15 U.S.C. 78q-1(b)(3)(F).

³¹ Id.

The proposal is designed to be consistent with Rule 17Ad-22(e)(4) under the Act, which requires, in part, that a 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.³² 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.³³ The proposal is consistent with Rule 17Ad-22(e)(4)(i) because it describes how FICC has developed and carries out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully FICC's credit exposures to each Clearing Member with a high degree of confidence.

As described above, FICC believes that the proposal to include the three key components of MBSD's stress testing program and a back-up calculation in the MBSD Rules would reflect the manner in which FICC has developed and carries out a credit risk management strategy to maintain sufficient prefunded financial resources to cover fully its credit exposures to each Clearing Member with a high degree of confidence, and further, to maintain additional prefunded financial resources at a minimum to enable FICC to cover a wide range of foreseeable stress scenarios that include, but are not limited to, extreme but plausible market conditions. FICC believes that the proposal to utilize Historical Data in the development of historical stress scenarios would incorporate a broad range of risk factors that enables MBSD's model to better understand a Clearing

³² 17 CFR 240.17Ad-22(e)(4).

³³ 17 CFR 240.17Ad-22(e)(4)(i).

Member's exposure to these risk factors. FICC also believes that the proposal to utilize Historical Data and Security-Level Data in the calculation of stress profits and losses for Clearing Members' portfolios would provide for calculated amounts that are closer to actual price changes for TBA securities during larger market moves in an effort to test the adequacy of MBSD's prefunded resources. Lastly, FICC believes that the proposal to use a back-up calculation would help to ensure that FICC has a methodology in place that allows it to continue to measure the adequacy of MBSD's prefunded financial resources in the event that the vendor fails to provide data. For these reason, FICC believes that the proposed changes would improve MBSD's stress testing program, which is used to test the sufficiency of MBSD's prefunded resources daily to support compliance with Rule 17Ad-22(e)(4)(i). As such, FICC believes that, taken together, the proposed changes are designed to be consistent with the requirements of Rule 17Ad-22(e)(4)(i) under the Act.³⁴

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.³⁵ FICC believes that the proposal to (1) include the three key components of MBSD's stress testing program in the MBSD Rules, (2) utilize Historical Data in the historical scenario development process, (3) utilize Security-Level Data and Historical Data in the calculation of stress profits and losses for Clearing Members' portfolios, and (4) implement a back-up calculation in the event the vendor fails to provide data would reflect standard predetermined parameters

³⁴ Id.

³⁵ 17 CFR 240.17Ad-22(e)(4)(vi)(A). The Framework identifies the sources of MBSD's prefunded resources for purposes of meeting FICC's requirements under Rule 17Ad-22(e)(4)(iii).

and assumptions that FICC would use in MBSD's stress testing program to conduct daily stress testing.

FICC believes that the proposal would reflect its use of standard predetermined parameters and assumptions in FICC's daily stress testing of its financial resources in order to support compliance with Rule 17Ad-22(e)(4)(vi)(A) under the Act.³⁶ As such, FICC believes that, taken together, the provisions as reflected in the proposed new section of the MBSD Rules are designed to be consistent with the requirements of Rule 17Ad-22(e)(4)(vi)(A) under the Act.³⁷

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

FICC does not believe that the proposal would have any impact, or impose any burden, on competition because the proposal does not affect the respective rights or obligations of Members that utilize MBSD's services.

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

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

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

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

³⁶ Id.

³⁷ 17 CFR 240.17Ad-22(e)(4)(vi)(A).

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

IV. Solicitation of Comments

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

Electronic Comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-FICC-2020-010 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-FICC-2020-010. 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 FICC and on DTCC's website (<http://dtcc.com/legal/sec-rule-filings.aspx>). All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-FICC-2020-010 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.³⁸

Secretary

³⁸ 17 CFR 200.30-3(a)(12).

Methodology Document

MBSD Market and Credit Risk Stress Test Models

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EXHIBIT 5

Bold, underlined text indicates proposed added language

~~Bold, strikethrough text~~ indicates proposed deleted language

**FIXED INCOME CLEARING CORPORATION
MORTGAGE-BACKED SECURITIES DIVISION
CLEARING RULES**

RULE 1 - DEFINITIONS

Changes to this Rule 1, as amended by File No. SR-FICC-2020-010, are available at dtcc.com/~media/Files/Downloads/legal/rule-filings/2020/FICC/SR-FICC-2020-010.pdf. These changes have been approved by the SEC but have not yet been implemented. By [insert date within 45 Business Days after the date of the SEC's approval of File No. SR-FICC-2020-010], these changes will be implemented and this legend will automatically be removed from this Rule 1.

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

* * * *

Average RFD

The term “Average RFD” shall have the meaning given that term in Section 7 of Rule 4. Backtesting Charge

Back-up Stress Testing Calculation

The term “Back-up Stress Testing Calculation” means, with respect to each Clearing Member’s portfolio, a back-up method for calculating the stress profits and losses of each portfolio when the vendor fails to provide data to the Corporation. The Corporation shall (1) calculate each Clearing Member’s portfolio net exposures in four securitization programs,¹ (2) calculate the historical stress return for each securitization program as the three-day price return for each securitization program index for each scenario date, and (3) calculate each Clearing Member’s stress profits and losses as the sum of the products of the net exposure of each securitization program and the stress return value for each securitization program. The Corporation shall use publicly available indices as the data source for the stress return calculations.

Backtesting Charge

The term “Backtesting Charge” means an additional charge that may be added to a Clearing Member’s VaR Charge to mitigate exposures to the Corporation caused by settlement risks that may not be adequately captured by the Corporation’s portfolio volatility model. The Backtesting Charge may apply to Clearing Members that have 12-month trailing backtesting coverage below the 99 percent backtesting coverage target. The Backtesting Charge shall generally be equal to the Clearing Member’s third largest deficiency that occurred during the previous 12 months. The Corporation may in its discretion adjust such charge if the Corporation determines that circumstances particular to a Clearing Member’s

¹ **The securitization programs are as follows: (1) Fannie Mae and Freddie Mac conventional 30-year mortgage-backed securities, (2) Ginnie Mae 30-year mortgage-backed securities, (3) Fannie Mae and Freddie Mac conventional 15-year mortgage-backed securities, and (4) Ginnie Mae 15-year mortgage-backed securities.**

settlement activity and/or market price volatility warrant a different approach to determining or applying such charge in a manner consistent with achieving the Corporation's backtesting coverage target.

* * * *

RULE 4 – CLEARING FUND AND LOSS ALLOCATION

Changes to this Rule 4, as amended by File No. SR-FICC-2020-010, are available at dtcc.com/~media/Files/Downloads/legal/rule-filings/2020/FICC/SR-FICC-2020-010.pdf. These changes have been approved by the SEC but have not yet been implemented. By [insert date within 45 Business Days after the date of the SEC's approval of File No. SR-FICC-2020-010], these changes will be implemented and this legend will automatically be removed from this Rule 4.

* * * *

Section 12 – Clearance and Settlement Business of the Corporation

For purposes of this Rule 4, references to the clearance and settlement business of the Corporation shall include its business as a Securities Intermediary.

Section 13 – Stress Testing

(a) Stress Testing Program

The Corporation uses stress testing to (1) test the sufficiency of the Clearing Fund against the Corporation's potential losses assuming the default of a Clearing Member with the largest credit exposure and its entire affiliated family (that are also Clearing Members) ("Affiliated Family") under extreme but plausible market conditions,² and (2) identify both (x) Clearing Members who may pose a greater market risk under certain market conditions, and (y) potential weaknesses in the Corporation's margin methodologies. The Corporation's stress testing program is comprised of the following three key components.

- (i) *Risk Identification.* The Corporation identifies the principal credit/market risk drivers that are representative and specific to each Clearing Member's clearing portfolio to determine risk exposures by analyzing the securities and risk exposures in such Members' clearing portfolios to identify representative principal market risk drivers and

² The Corporation aggregates each Clearing Member's stress deficiency within such Clearing Member's applicable Affiliated Family because the Corporation assumes that all Affiliated Family members will simultaneously default, and the gains and losses of different legal entities within an Affiliated Family would not offset each other.

to capture the risk sensitivity of such clearing portfolios under stressed market conditions.

- (ii) *Scenario Development.* The Corporation constructs comprehensive and relevant sets of extreme but plausible historical and hypothetical stress scenarios for the identified risk drivers. Historical scenarios are based on stressed market conditions that occurred on specific dates in the past. The Corporation uses historical risk factor times series data (“Historical Data”) in the development of the historical scenarios. Hypothetical stress scenarios are based on theoretical market conditions that may not actually have occurred but could conceivably occur. The Corporation then applies the historical and hypothetical scenarios to Clearing Members’ portfolio positions.
- (iii) *Risk Measurement and Aggregation.* The Corporation calculates risk metrics for each Clearing Member’s actual portfolio to estimate the profits and losses in connection with such Clearing Member’s close out under the chosen stress scenarios. The Corporation uses Historical Data and security-level risk sensitivity data (“Security-Level Data”) in its calculation of profits and losses for Clearing Members’ portfolios.

The Corporation receives the Historical Data and the Security-Level Data from a vendor.

(b) Back-up Stress Testing Calculation

In the event that the vendor fails to provide any data or a significant portion of the data, the Corporation will use the most recently available data on the first day that such disruption occurs. Subject to discussions with the vendor, if the Corporation determines that the vendor would resume providing data within five (5) Business Days, the Corporation will determine whether the daily stress testing calculation should continue to be calculated by using the most recently available data or whether the Back-up Stress Testing Calculation should be invoked.³ Subject to discussions with the vendor, if the Corporation determines that the data disruption would extend beyond five (5) Business Days, the Back-up Stress Testing Calculation will be employed for daily stress testing, subsequent to the approval of the Corporation’s designated internal authority.

³ For the avoidance of doubt, after taking into consideration the vendor’s condition and, to the extent applicable, market conditions, the Corporation may invoke the Back-up Stress Testing Calculation sooner.