

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-101566; File No. SR-FICC-2024-801)

November 8, 2024

Self-Regulatory Organizations; Fixed Income Clearing Corporation; Notice of No Objection to Advance Notice, as Modified by Partial Amendment No. 1, to Adopt a Minimum Margin Amount at GSD

On February 27, 2024, Fixed Income Clearing Corporation (“FICC”) filed with the Securities and Exchange Commission (“Commission”) advance notice SR-FICC-2024-801 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 (“Clearing Supervision Act”)<sup>1</sup> and Rule 19b-4(n)(1)(i) under the Securities Exchange Act of 1934 (“Act”).<sup>2</sup> In the advance notice, FICC proposes to add a minimum margin amount calculation to the margin methodology of FICC’s Government Securities Division (“GSD”) to enhance margin collections during periods of extreme market volatility, as described more fully below. The notice of filing of the advance notice was published for comment in the Federal Register on March 15, 2024.<sup>3, 4</sup> Upon

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<sup>1</sup> 12 U.S.C. 5465(e)(1).

<sup>2</sup> 17 CFR 240.19b-4(n)(1)(i).

<sup>3</sup> Securities Exchange Act Release No. 99712 (March 11, 2024), 89 FR 18981 (March 15, 2024) (SR-FICC-2024-801).

<sup>4</sup> On February 27, 2024, FICC filed the advance notice as a proposed rule change with the Commission pursuant to Section 19(b)(1) of the Act, 15 U.S.C. 78s(b)(1), and Rule 19b-4 thereunder, 17 CFR 240.19b-4. The notice of proposed rule change was published in the Federal Register on March 15, 2024. Securities Exchange Act Release No. 99710 (March 11, 2024), 89 FR 18991 (March 15, 2024) (SR-FICC-2024-003). On March 25, 2024, the Commission extended the review period of the proposed rule change, pursuant to section 19(b)(2) of the Act, 15 U.S.C. 78s(b)(2)(ii), until June 13, 2024, as the date by which the Commission shall either approve, disapprove, or institute proceedings to determine whether to disapprove the proposed rule change. Securities Exchange Act Release No. 99769 (March 19, 2024), 89 FR 20716 (March 25, 2024) (SR-FICC-2024-003). On May 20, 2024, the Commission published in the Federal Register an Order Instituting Proceedings to determine whether to approve or disapprove the proposed rule change. Securities Exchange Act Release No. 100141 (May 14, 2024), 89 FR 43915 (May 20,

publication of notice of filing of the advance notice, the Commission extended the review period of the advance notice for an additional 60 days because the Commission determined that the advance notice raised novel and complex issues.<sup>5</sup> On March 22, 2024, the Commission requested additional information from FICC pursuant to Section 806(e)(1)(D) of the Clearing Supervision Act, which tolled the Commission's period of review of the advance notice until 120 days from the date the information requested by the Commission was received by the Commission.<sup>6</sup> On April 26, 2024, the Commission received FICC's response to the Commission's request for additional information.<sup>7</sup>

On April 5, 2024, FICC filed Partial Amendment No. 1 to the advance notice to correct errors FICC discovered regarding the impact analysis filed as Exhibit 3 and discussed in the filing narrative, as well as correct a typo in the methodology formula in Exhibit 5b.<sup>8</sup> Partial Amendment No. 1 corrected percentages and other figures throughout

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2024) (SR-FICC-2024-003). On September 12, 2024, the Commission designated a longer period for Commission action on the proceedings to determine whether to disapprove the proposed rule change, until November 10, 2024. Securities Exchange Act Release No. 100958 (Sept. 6, 2024), 89 FR 74309 (Sept. 12, 2024) (SR-FICC-2024-003).

<sup>5</sup> Pursuant to Section 806(e)(1)(H) of the Act, the Commission may extend the review period of an advance notice for an additional 60 days, if the changes proposed in the advance notice raise novel or complex issues, subject to the Commission providing the financial market utility ("FMU") with prompt written notice of the extension.12 U.S.C. 5465(e)(1)(H); see supra note 3 at 18990 (explaining the Commission's rationale for determining that the proposed changes in the advance notice raise novel and complex issues because the proposed changes to FICC's margin model are a direct response by FICC to address the unique circumstances that occurred during recent periods of extreme market volatility (i.e., the pandemic-related market volatility in March 2020 and the volatility during the successive interest rate hikes that began in March 2022)).

<sup>6</sup> See 12 U.S.C. 5465(e)(1)(D). A memo regarding the Request for Additional Information and the tolled period of review is available at <https://www.sec.gov/comments/sr-ficc-2024-801/srficc2024801-449019-1150022.pdf>.

<sup>7</sup> See 12 U.S.C. 5465(e)(1)(E)(ii) and (G)(ii). A memo regarding receipt of FICC's response to the Request for Additional Information is available at <https://www.sec.gov/comments/sr-ficc-2024-801/srficc2024801-471851-1323835.pdf>.

<sup>8</sup> FICC has requested confidential treatment pursuant to 17 CFR 240.24b-2 with respect to Exhibit 3 and Exhibit 5b.

the filing narrative. The corrections in Partial Amendment No. 1 did not change the substance of the advance notice. On May 20, 2024, the Commission published notice of the advance notice, as modified by Partial Amendment No. 1 (hereinafter, the “Advance Notice”), for comment in the Federal Register.<sup>9</sup>

On August 13, 2024, the Commission made a second request for additional information from FICC pursuant to Section 806(e)(1)(D) of the Clearing Supervision Act, which tolled the Commission’s period of review of the advance notice until 120 days from the date the information requested by the Commission was received by the Commission.<sup>10</sup> On September 26, 2024, the Commission received FICC’s response to the Commission’s second request for additional information.<sup>11</sup>

The Commission has received comments regarding the substance of the changes proposed in the Advance Notice.<sup>12</sup> In addition, the Commission received a letter from

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<sup>9</sup> Securities Exchange Act Release No. 99712 (May 14, 2024), 89 FR 43941 (May 20, 2024) (SR-FICC-2024-801) (“Notice of Filing”).

<sup>10</sup> See 12 U.S.C. 5465(e)(1)(D). A memo regarding the second Request for Additional Information and the tolled period of review is available at <https://www.sec.gov/comments/sr-ficc-2024-801/srficc2024801-506275-1473822.pdf>.

<sup>11</sup> See 12 U.S.C. 5465(e)(1)(E)(ii) and (G)(ii). A memo regarding receipt of FICC’s response to the second Request for Additional Information is available at <https://www.sec.gov/comments/sr-ficc-2024-801/srficc2024801-527175-1514362.pdf>.

<sup>12</sup> Comments on the Advance Notice are available at <https://www.sec.gov/comments/sr-ficc-2024-801/srficc2024801.htm>. Comments on the proposed rule change are available at <https://www.sec.gov/comments/sr-ficc-2024-003/srficc2024003.htm>. Because the proposals contained in the Advance Notice and the proposed rule change are the same, the Commission considers all comments received on the proposal, regardless of whether the comments are submitted with respect to the Advance Notice or the proposed rule change.

FICC responding to the comments.<sup>13</sup> This publication serves as notice of no objection to the Advance Notice.

## **I. THE ADVANCE NOTICE**

### **A. Executive Summary**

FICC proposes to add a new Minimum Margin Amount (“MMA”) calculation to the GSD margin methodology to ensure that FICC collects sufficient margin amounts from its members during sudden periods of extreme market volatility. Recently, FICC faced increased risk exposure to its members during two periods of extreme market volatility, *i.e.*, the COVID-related volatility in March 2020 and the volatility resulting from the successive interest rate hikes that began in March 2022. Those periods of volatility involved market price changes that exceeded the GSD margin model’s projections, causing FICC to collect margin amounts that were insufficient to cover FICC’s risk exposure to its members. This highlighted the need for FICC to enhance the GSD margin methodology to provide better coverage during periods of extreme market volatility.

FICC proposes to add the MMA calculation to the Value-at-Risk charge (“VaR Charge”) component of the GSD margin methodology. Whereas the current VaR Charge is determined as the greater of two separate calculations, FICC proposes to add the MMA as a third calculation so that the VaR Charge would be the greater of three separate calculations. FICC specifically designed the MMA calculation to be more responsive to volatile market conditions than the two existing VaR Charge calculations. As described

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<sup>13</sup> See Letter from Timothy B. Hulse, Managing Director, Financial Risk, Governance & Credit Risk, Depository Trust & Clearing Corporation, (June 24, 2024) (“FICC Letter”).

more fully below, the MMA calculation uses a filtered historical simulation (“FHS”) approach, which takes historical price data, removes the historical volatility estimates, and replaces them with volatility estimates that reflect current market conditions. The FHS approach also incorporates parameters that would give more weight to recent market events, such that when market volatility spikes, the MMA calculation would generate higher amounts and be more likely to exceed the other two VaR Charge calculations. Conversely, when market volatility subsides, the MMA calculation would generate lower amounts and be less likely to exceed the other two VaR Charge calculations.

FICC conducted a 2-year impact study to analyze, among other things, the actual daily member-level margin amounts and backtesting results in comparison to the margin amounts and backtesting results had the MMA calculation been in place. The impact study indicates that if FICC used the MMA calculation during the 2-year period of analysis, FICC’s margin collections and backtesting coverage would have significantly improved and enabled FICC to meet its 99 percent backtesting performance targets.

## **B. Background**

FICC, through its Government Securities Division (“GSD”),<sup>14</sup> serves as a central counterparty (“CCP”) and provider of clearance and settlement services for transactions in U.S. government securities, as well as repurchase and reverse repurchase transactions involving U.S. government securities.<sup>15</sup> A key tool that FICC uses to manage its credit exposures to its members is the daily collection of the Required Fund Deposit (*i.e.*,

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<sup>14</sup> The GSD Rules are available at [https://www.dtcc.com/~/media/Files/Downloads/legal/rules/ficc\\_gov\\_rules.pdf](https://www.dtcc.com/~/media/Files/Downloads/legal/rules/ficc_gov_rules.pdf). Terms not otherwise defined herein are defined in the GSD Rules.

<sup>15</sup> GSD also clears and settles certain transactions on securities issued or guaranteed by U.S. government agencies and government sponsored enterprises.

margin) from each member.<sup>16</sup> The aggregated amount of all members' Required Fund Deposits constitutes the Clearing Fund, which FICC would access should a defaulted member's own Required Fund Deposit be insufficient to satisfy losses to FICC caused by the liquidation of that member's portfolio.<sup>17</sup>

A member's Required Fund Deposit consists of a number of components, each of which is calculated to address specific risks faced by FICC.<sup>18</sup> The VaR Charge generally comprises the largest portion of a member's Required Fund Deposit amount. The VaR Charge is a calculation of the volatility of the unsettled securities positions in a member's portfolio.<sup>19</sup> For each member portfolio, FICC currently uses two separate methods to calculate amounts, the greater of which constitutes the member's VaR Charge.<sup>20</sup>

FICC's first calculation uses a sensitivity-based VaR methodology to estimate the possible losses for a given portfolio based on: (1) confidence level, (2) a time horizon, and (3) historical market volatility. The sensitivity VaR methodology is intended to capture the market price risks that are associated with the securities positions in a member's margin portfolio,<sup>21</sup> at a 99 percent confidence level. This methodology projects the potential losses that could occur in connection with the liquidation of a defaulting member's portfolio, assuming a portfolio would take three days to liquidate in normal

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<sup>16</sup> See GSD Rule 4 (Clearing Fund and Loss Allocation), supra note 14.

<sup>17</sup> See id.

<sup>18</sup> Supra note 16.

<sup>19</sup> See GSD Rule 1 (Definitions – VaR Charge), supra note 14.

<sup>20</sup> See id.

<sup>21</sup> Market price risk refers to the risk that volatility in the market causes the price of a security to change between the execution of a trade and settlement of that trade. This risk is sometimes also referred to as volatility risk.

market conditions. The sensitivity VaR methodology relies on sensitivity data and historical risk factor time series data generated by an external vendor to calculate the risk profile of each member’s portfolio. In the event of a vendor data disruption, the GSD Rules provide for an alternative volatility calculation that relies on historical market index proxies (the “Margin Proxy” calculation).<sup>22</sup>

FICC recognizes that the sensitivity VaR methodology might not generate margin amounts sufficient to cover its exposure to its members consistent with its regulatory obligations when applied to certain types of member portfolios.<sup>23</sup> Therefore, FICC’s second calculation uses a haircut-based methodology (currently referred to in the GSD Rules as the “VaR Floor”),<sup>24</sup> in which FICC applies a haircut to the market value of the gross unsettled positions in the member’s portfolio.<sup>25</sup> The current VaR Floor is not designed to address the risk of potential underperformance of the sensitivity VaR methodology under extreme market volatility.<sup>26</sup> Each member’s VaR Charge is either the

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<sup>22</sup> See GSD Rule 1 (Definitions – Margin Proxy), supra note 14; Securities Exchange Act Release Nos. 80341 (March 30, 2017), 82 FR 16644 (April 5, 2017) (SR-FICC-2017-801); Securities Exchange Act Release No. 83223 (May 11, 2018), 83 FR 23020 (May 17, 2018) (SR-FICC-2018-801).

<sup>23</sup> See Notice of Filing, supra note 9 at 43944. Specifically, for member portfolios that contain both long and short positions in different classes of securities that have a high degree of historical price correlation, the sensitivity VaR methodology can generate inadequate VaR Charges. See id.

<sup>24</sup> Supra note 19.

<sup>25</sup> See Securities Exchange Act Release No. 83362 (June 1, 2018), 83 FR 26514 (June 7, 2018) (SR-FICC-2018-001). Specifically, FICC calculates the VaR Floor by multiplying the absolute value of the sum of the portfolio’s net long positions and net short positions, grouped by product and remaining maturity, by a percentage designated by FICC for such group. For U.S. Treasury and agency securities, such percentage shall be a fraction, no less than 10 percent, of the historical minimum volatility of a benchmark fixed income index for such group by product and remaining maturity. For mortgage-backed securities, such percentage shall be a fixed percentage that is no less than 0.05 percent. Supra note 19.

<sup>26</sup> See Notice of Filing, supra note 9 at 43944.

sensitivity VaR calculation or the VaR Floor calculation, whichever is greater.<sup>27</sup>

FICC regularly assesses whether its margin methodologies generate margin levels commensurate with the particular risk attributes of each relevant product, portfolio, and market. For example, FICC employs daily backtesting<sup>28</sup> to determine the adequacy of margin collections from its members.<sup>29</sup> FICC compares each Member's Required Fund Deposit<sup>30</sup> with the simulated liquidation gains/losses, using the actual positions in each member portfolio and the actual historical security returns. A backtesting deficiency occurs when a member's Required Fund Deposit would not have been adequate to cover the projected liquidation losses. Backtesting deficiencies highlight exposures that could subject FICC to potential losses in the event of a member default.

FICC believes that its current VaR model has performed well in low to moderate volatility markets,<sup>31</sup> though it has not met FICC's performance targets during periods of

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<sup>27</sup> Supra note 19.

<sup>28</sup> Backtesting is an ex-post comparison of actual outcomes (i.e., the actual margin collected) with expected outcomes derived from the use of margin models. See 17 CFR 240.17ad-22(a)(1).

<sup>29</sup> FICC's Model Risk Management Framework ("Model Risk Management Framework") sets forth the model risk management practices of FICC and states that VaR and Clearing Fund requirement coverage backtesting would be performed on a daily basis or more frequently. See Securities Exchange Act Release Nos. 81485 (Aug. 25, 2017), 82 FR 41433 (Aug. 31, 2017) (SR-FICC-2017-014); 84458 (Oct. 19, 2018), 83 FR 53925 (Oct. 25, 2018) (SR-FICC-2018-010); 88911 (May 20, 2020), 85 FR 31828 (May 27, 2020) (SR-FICC-2020-004); 92380 (July 13, 2021), 86 FR 38140 (July 19, 2021) (SR-FICC-2021-006); 94271 (Feb. 17, 2022), 87 FR 10411 (Feb. 24, 2022) (SR-FICC-2022-001); 97890 (July 13, 2023), 88 FR 46287 (July 19, 2023) (SR-FICC-2023-008).

<sup>30</sup> Members may be required to post additional collateral to the Clearing Fund in addition to their Required Fund Deposit amount. See e.g., Section 7 of GSD Rule 3 (Ongoing Membership Requirements), supra note 14 (providing that adequate assurances of financial responsibility of a member may be required, such as increased Clearing Fund deposits). For backtesting comparisons, FICC uses the Required Fund Deposit amount, without regard to the actual, total collateral posted by the member to the GSD Clearing Fund.

<sup>31</sup> During the periods of relatively low to moderate market volatility from January 2013 to March 2020, the VaR model generally performed above the 99 percent performance targets. See Notice of Filing, supra note 9 at 43943.

extreme market volatility.<sup>32</sup> As described more fully below, FICC performed an impact study on its members' margin portfolios covering the period beginning July 1, 2021 through June 30, 2023 ("Impact Study").<sup>33</sup> During the period of the Impact Study, FICC's VaR model backtesting coverage was 98.86 percent, with 843 VaR model backtesting deficiencies.<sup>34</sup> Also, during the period of the Impact Study, FICC's overall margin backtesting coverage was 98.87 percent, with 685 overall margin backtesting deficiencies.<sup>35</sup> Thus, the Impact Study demonstrates that FICC's backtesting metrics fell below performance targets during the period of the Impact Study.<sup>36</sup> FICC states that the foregoing backtesting deficiencies are attributable to recent periods of extreme volatility in the fixed income market caused by monetary policy changes, inflation, and recession fears, which have led to greater risk exposures for FICC.<sup>37</sup> Specifically, FICC states that the periods of extreme market volatility in March 2020 related to the COVID pandemic and the successive interest rate hikes that began in March 2022, have led to market price changes that exceeded the projections of FICC's current VaR model, resulting in insufficient VaR Charges.<sup>38</sup>

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<sup>32</sup> During the pandemic-related volatility in March 2020 and the successive interest rate hikes that began in March 2022, the VaR model fell below the 99 percent performance targets. See Notice of Filing, supra note 9 at 43942-44.

<sup>33</sup> As part of the Advance Notice, FICC filed Exhibit 3 – FICC Impact Study. Pursuant to 17 CFR 240.24b-2, FICC requested confidential treatment of Exhibit 3.

<sup>34</sup> See Notice of Filing, supra note 9 at 43947.

<sup>35</sup> See id.

<sup>36</sup> See Notice of Filing, supra note 9 at 43943-44.

<sup>37</sup> See Notice of Filing, supra note 9 at 43942-44.

<sup>38</sup> See id.

Accordingly, in the Advance Notice, FICC proposes changes to the VaR model that FICC believes would mitigate the risk of potential underperformance of the VaR model during periods of extreme market volatility.<sup>39</sup>

### **C. Proposed Changes**

In the Advance Notice, FICC proposes to introduce a new minimum margin amount (*i.e.*, the MMA) into the GSD margin methodology. FICC proposes to calculate the MMA for each member portfolio as a supplement to the existing sensitivity VaR calculation and the haircut-based VaR Floor calculation described above in Section I.B. FICC proposes to rename the current haircut-based VaR Floor calculation as the “VaR Floor Percentage Amount.” FICC proposes to revise the existing VaR Floor definition to mean the greater of (1) the VaR Floor Percentage Amount, and (2) the MMA. Thus, the greater of the three calculations (*i.e.*, sensitivity VaR, VaR Floor Percentage Amount, and MMA) would constitute the member’s VaR Charge. Additionally, FICC proposes to clarify that the VaR Floor would also apply in the event that the Margin Proxy is invoked. The proposed changes are described in greater detail below.

#### **1. Minimum Margin Amount Calculation**

FICC would calculate the MMA for each portfolio using historical price returns to

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<sup>39</sup> The proposed changes would revise the GSD Rules and FICC’s Methodology Document – GSD Initial Market Risk Margin Model (the “QRM Methodology”) relevant to the VaR model. As part of the Advance Notice, FICC filed Exhibit 5b – Proposed Changes to the QRM Methodology. Pursuant to 17 CFR 240.24b-2, FICC requested confidential treatment of Exhibit 5b. FICC originally filed the QRM Methodology as a confidential exhibit to proposed rule change SR-FICC-2018-001. *See* supra note 25; *see also* Securities Exchange Act Release No. 83223 (May 11, 2018), 83 FR 23020 (May 17, 2018) (SR-FICC-2018-801). FICC has subsequently amended the QRM Methodology. *See* Securities Exchange Act Release Nos. 85944 (May 24, 2019), 84 FR 25315 (May 31, 2019) (SR-FICC-2019-001); 90182 (Oct. 14, 2020), 85 FR 66630 (Oct. 20, 2020) (SR-FICC-2020-009); 93234 (Oct. 1, 2021), 86 FR 55891 (Oct. 7, 2021) (SR-FICC-2021-007); 95605 (Aug. 25, 2022), 87 FR 53522 (Aug. 31, 2022) (SR-FICC-2022-005); 97342 (Apr. 21, 2023), 88 FR 25721 (Apr. 27, 2023) (SR-FICC-2023-003); 99447 (Jan. 30, 2024), 89 FR 8260 (Feb. 6, 2024) (SR-FICC-2024-001).

represent risk.<sup>40</sup> FICC would calculate the MMA as the sum of the following:

(1) amounts calculated using an FHS approach<sup>41</sup> to assess volatility by scaling historical market price returns to current market volatility, with market volatility being measured by applying an exponentially weighted moving average (“EWMA”) to the historical market price returns with a decay factor between 0.93 and 0.99,<sup>42</sup> as determined by FICC based on sensitivity analysis, macroeconomic conditions, and/or backtesting performance; (2) amounts calculated using a haircut method to measure the risk exposure of those securities that lack sufficient historical price return data; and (3) amounts calculated to incorporate risks related to (i) repo interest volatility (“repo interest volatility charge”)<sup>43</sup> and (ii) transaction costs related to bid-ask spread in the market that could be incurred when liquidating a portfolio (“bid-ask spread risk charge”).<sup>44</sup>

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<sup>40</sup> FICC refers to the proposed approach as the “price return-based risk representation” in the QRM Methodology. See Notice of Filing, supra note 9 at 43944. Given the availability and accessibility of historical price returns data, FICC believes the proposed approach would help minimize and diversify FICC’s risk exposure from external data vendors. See id.

<sup>41</sup> The FHS method differs from the historical simulation method, which uses historical price return data as is, by incorporating the volatilities of historical price returns. In particular, the FHS method constructs the filtered historical price returns in two steps: (1) “devolatilizing” the historical price returns by dividing them by a volatility estimate for the day of the price return, and (2) “revolatilizing” the devolatilized price returns by multiplying them by a volatility estimate based on the current market. For additional background on the FHS method, see Filtered Historical Simulation Value-at-Risk Models and Their Competitors, Pedro Gurrola-Perez and David Murphy, Bank of England, March 2015, at [www.bankofengland.co.uk/working-paper/2015/filtered-historical-simulation-value-at-risk-models-and-their-competitors](http://www.bankofengland.co.uk/working-paper/2015/filtered-historical-simulation-value-at-risk-models-and-their-competitors).

<sup>42</sup> FICC would provide members with at least one Business Day advance notice of any change to the decay factor via an Important Notice.

<sup>43</sup> The “repo interest volatility charge” is a component of the VaR Charge designed to address repo interest volatility. The repo interest volatility charge is calculated based on internally constructed repo interest rate indices. As proposed, FICC would include the repo interest volatility charge as a component of the MMA; however, FICC is not proposing to otherwise change the repo interest volatility charge or the manner in which it is calculated. See Notice of Filing, supra note 9 at 43944.

<sup>44</sup> The “bid-ask spread risk charge” is a component of the VaR Charge designed to address transaction costs related to bid-ask spread in the market that FICC could incur when liquidating a

*FHS Method:* For the FHS method, FICC would first construct historical price returns using certain mapped fixed income securities benchmarks. Specifically, FICC proposes to use the following mapped fixed income securities benchmarks with the FHS method when calculating the MMA: (1) Bloomberg Treasury indexes for U.S. Treasury and agency securities; (2) Bloomberg TIPS indexes for Treasury Inflation-Protected Securities (“TIPS”); and (3) to-be-announced (“TBA”) securities for mortgage-backed securities (“MBS”) pools. FICC states that it chose these benchmarks because their price movements generally closely track those of the securities mapped to them and that their price history is generally readily available and accessible.<sup>45</sup>

After constructing historical price returns, FICC would estimate a market volatility associated with each historical price return by applying an EWMA to the historical price returns. FICC would “devolatilize” the historical price returns (*i.e.*, remove an amount attributable to the historical market volatility from the price returns) by dividing them by the corresponding EWMA volatilities to obtain the residual returns. FICC would “revolatilize” the residual returns (*i.e.*, add an amount attributable to the current market volatility to the residual returns) by multiplying them by the current EWMA volatility to obtain the filtered returns.

FICC proposes to use the FHS method to improve the responsiveness of the VaR model to periods of extreme market volatility because historical returns are scaled to

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portfolio. As proposed, FICC would include the bid-ask spread risk charge as a component of the MMA; however, FICC is not proposing to otherwise change the bid-ask spread risk charge or the manner in which it is calculated. See Notice of Filing, supra note 9 at 43944.

<sup>45</sup> See Notice of Filing, supra note 9 at 43945.

current market volatility.<sup>46</sup> FICC would use filtered return time series to simulate the profits and losses of a member’s portfolio and derive the volatility of the portfolio using the standard historical simulation approach. Specifically, FICC would map each security that is in a member’s portfolio to a respective fixed income securities benchmark, as applicable, based on the security’s asset class and remaining maturity. FICC would use the filtered returns of the benchmark as the simulated returns of the mapped security to calculate the simulated profits and losses of a member’s portfolio. Finally, FICC would calculate the MMA as the 99-percentile of the simulated portfolio loss. In accordance with FICC’s model risk management practices and governance set forth in the Clearing Agency Model Risk Management Framework,<sup>47</sup> FICC would determine the mapped fixed income securities benchmarks, historical market price returns, parameters, and volatility assessments used to calculate the MMA.

*FHS Parameters:* The proposed MMA would use a lookback period for the FHS and a decay factor for calculating the EWMA volatility of the historical price returns. Specifically, the MMA lookback period would be the same as the lookback period currently used for the sensitivity VaR calculation, which is 10 years, plus, to the extent applicable, a stressed period. FICC would analyze the MMA’s lookback period and evaluate its sensitivity and impact on margin model performance, consistent with the VaR methodology outlined in the QRM Methodology and pursuant to the model

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<sup>46</sup> See Notice of Filing, *supra* note 9 at 43942.

<sup>47</sup> See Model Risk Management Framework, *supra* note 29.

performance monitoring required under the Model Risk Management Framework.<sup>48</sup>

The decay factor generally affects (1) whether and how the MMA would be invoked (*i.e.*, applied as a member’s VaR Charge), (2) the peak level of margin increase or the degree of procyclicality, and (3) how quickly the margin would fall back to pre-stress levels. As proposed, FICC would have the discretion to set the decay factor between 0.93 and 0.99, with the initial decay factor value set at 0.97. FICC expects that any adjustment to the decay factor would be an infrequent event that would typically happen only when there is an unprecedented market volatility event resulting in risk exposures to FICC that cannot be adequately mitigated by the then-calibrated decay factor.<sup>49</sup> FICC’s decision to adjust the decay factor would be based on an analysis of the decay factor’s sensitivity and impact to the model performance, considering factors including the impact to the VaR Charges, macroeconomic conditions, and/or backtesting performance.<sup>50</sup> Any decision by FICC to adjust the decay factor would be in accordance with FICC’s model risk management practices and governance set forth in the Model Risk Management Framework.<sup>51</sup>

*Haircut Method:* Occasionally, a member’s portfolio might contain classes of

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<sup>48</sup> The Model Risk Management Framework provides that all models undergo ongoing model performance monitoring and backtesting, which is the process of (1) evaluating an active model’s ongoing performance based on theoretical tests, (2) monitoring the model’s parameters through the use of threshold indicators, and/or (3) backtesting using actual historical data/realizations to test a VaR model’s predictive power. *Supra* note 29.

<sup>49</sup> See Notice of Filing, *supra* note 9 at 43946.

<sup>50</sup> See *id.*

<sup>51</sup> See Model Risk Management Framework, *supra* note 29. Similar to the lookback period described above, FICC would also analyze the decay factor to evaluate its sensitivity and impact to the model performance pursuant to the model performance monitoring required under the Model Risk Management Framework.

securities that reflect market price changes that are not consistently related to historical price moves. The value of such securities is often uncertain because the securities' market volume varies widely. Because the volume and historical price information for such securities are not sufficient to perform accurate statistical analyses, the FHS method would not generate an MMA amount that adequately reflects the risk profile of such securities. Accordingly, FICC would use a haircut method to assess the market risk of securities that are more difficult to simulate (e.g., due to thin trading history).

Specifically, FICC would use a haircut method for MBS pools that are not TBA securities eligible, floating rate notes, and U.S. Treasury/agency securities with remaining time to maturities of less than or equal to one year. FICC would also use a haircut method to account for the basis risk between an agency security and the mapped U.S. Treasury index to supplement the historical market price moves generated by the FHS method for agency securities to reflect any residual risks between agency securities and the mapped fixed income securities benchmarks (i.e., Bloomberg Treasury indexes).<sup>52</sup> Similarly, FICC would use a haircut method to account for the MBS pool/TBA basis risk to address the residual risk for using TBA price returns as proxies for MBS pool returns used in the FHS method.

*Ongoing Performance Monitoring:* The Model Risk Management Framework would require FICC to conduct ongoing model performance monitoring of the MMA methodology.<sup>53</sup> FICC's current model performance monitoring practices would provide

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<sup>52</sup> Accounting for the basis risk would enable FICC to explicitly model and manage the basis risk between an agency security and the mapped U.S. Treasury index, given that agency securities are not as actively traded as U.S. Treasury securities.

<sup>53</sup> See note 29.

for sensitivity analysis of relevant model parameters and assumptions to be conducted monthly, or more frequently when markets display high volatility.<sup>54</sup> Additionally, FICC would monitor each member's Required Fund Deposit and the aggregate Clearing Fund requirements versus the requirements calculated by the MMA, by comparing the results versus the three-day profit and loss of each member's portfolio based on actual market price moves.<sup>55</sup> Based on the results of the sensitivity analysis and/or backtesting, FICC could consider adjustments to the MMA, including changing the decay factor as appropriate.<sup>56</sup> Any adjustment to the MMA calculation would be subject to the model risk management practices and governance process set forth in the Model Risk Management Framework.<sup>57</sup>

*Impact Study:* As mentioned above in Section I.B., FICC performed an Impact Study on its members' margin portfolios covering the period beginning July 1, 2021 through June 30, 2023.<sup>58</sup> The Impact Study lists the actual daily and average VaR Charges at both the member-level and CCP-level during the period of the Impact Study, compared with how those amounts would have changed if the proposed MMA had been in place. The Impact Study also lists the actual daily backtesting results at the member-level during the period of the Impact Study, compared with how those amounts would have changed if the proposed MMA had been in place. The Impact Study shows that if

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<sup>54</sup> See Notice of Filing, *supra* note 9 at 43946.

<sup>55</sup> See *id.*

<sup>56</sup> See *id.*

<sup>57</sup> See Model Risk Management Framework, *supra* note 29.

<sup>58</sup> FICC states that it currently does not use Margin Proxy as an adjustment factor to the VaR and does not intend to use it as such in the future. See Notice of Filing, *supra* note 9 at 43947.

the proposed MMA had been in place during the period of the Impact Study, when compared to the current VaR methodology: (1) the aggregate average daily start-of-day (“SOD”) VaR Charges would have increased by approximately \$2.90 billion or 13.89 percent; (2) the aggregate average daily noon VaR Charges would have increased by approximately \$3.03 billion or 14.06 percent; and (3) the aggregate average daily Backtesting Charges<sup>59</sup> would have decreased by approximately \$622 million or 64.46 percent.<sup>60</sup>

The Impact Study indicates that if the proposed MMA had been in place, the VaR model backtesting coverage would have increased from approximately 98.86 percent to 99.46 percent during the period of the Impact Study and the number of VaR model backtesting deficiencies would have been reduced by 441 (from 843 to 402, or approximately 52 percent). The Impact Study also indicates that if the proposed MMA had been in place: (1) overall margin backtesting coverage would have increased from approximately 98.87 percent to 99.33 percent, (2) the number of overall margin backtesting deficiencies would have been reduced by 280 (from 685 to 405, or approximately 41 percent), and (3) the overall margin backtesting coverage for 94 members (approximately 72 percent of the GSD membership) would have improved, with 36 members who were below 99 percent coverage brought back to above 99 percent.

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<sup>59</sup> The Backtesting Charge is an additional charge that may be added to a member’s VaR Charge to mitigate exposures to FICC caused when the member exhibits a pattern of breaching the target coverage ratio of 99 percent. See GSD Rule 1 (Definitions – Backtesting Charge), supra note 14.

<sup>60</sup> Margin Proxy was not invoked during the period of the Impact Study. However, if the proposed MMA had been in place and the Margin Proxy was invoked during the period of the Impact Study: the aggregate average daily SOD VaR Charges would have increased by approximately \$4.16 billion or 20.97 percent; the VaR model backtesting coverage would have increased from approximately 98.17 percent to 99.38 percent; and the number of the VaR model backtesting deficiencies would have been reduced by 899 (from 1358 to 459, or approximately 66.2 percent).

On average, at the member-level, the proposed MMA would have increased the SOD VaR Charge by approximately \$22.43 million, or 17.56 percent, and the noon VaR Charge by approximately \$23.25 million, or 17.43 percent, over the period of the Impact Study. The largest average percentage increase in SOD VaR Charge for any member would have been approximately 66.88 percent, or \$97,051 (0.21 percent of the member's average Net Capital),<sup>61</sup> and the largest average percentage increase in noon VaR Charge for any member would have been approximately 64.79 percent, or \$61,613 (0.13 percent of the member's average Net Capital). The largest average dollar increase in SOD VaR Charge for any member would have been approximately \$268.51 million (0.34 percent of the member's average Net Capital), or 19.06 percent, and the largest dollar increase in noon VaR Charge for any member would have been approximately \$289.00 million (1.07 percent of the member's average Net Capital), or 13.67 percent. The top 10 members based on the size of their average SOD VaR Charges and average noon VaR Charges would have contributed approximately 51.87 percent and 53.64 percent of the aggregated SOD VaR Charges and aggregated noon VaR Charges, respectively, during the period of the Impact Study had the proposed MMA been in place. The same members would have contributed to 50.08 percent and 51.52 percent of the increase in aggregated SOD VaR Charges and aggregated noon VaR Charges, respectively, had the proposed MMA been in place during the period of the Impact Study.

## **2. Clarification of VaR Floor to Include Margin Proxy**

As mentioned above in Section I.B., the Margin Proxy methodology is currently

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<sup>61</sup> The term "Net Capital" means, as of a particular date, the amount equal to the net capital of a broker or dealer as defined in SEC Rule 15c3-1(c)(2), or any successor rule or regulation thereto. See GSD Rule 1 (Definitions), *supra* note 14.

invoked as an alternative volatility calculation if the requisite vendor data used for the sensitivity VaR calculation is unavailable for an extended period of time.<sup>62</sup> FICC proposes to clarify that the VaR Floor, which does not depend upon any vendor data, operates as a floor for the Margin Proxy, such that if the Margin Proxy, when invoked, is lower than the VaR Floor, then the VaR Floor would be utilized as the VaR Charge with respect to a member’s portfolio. FICC believes this clarification would enable Margin Proxy to be an effective risk mitigant under extreme market volatility and heightened market stress because as discussed above in Section I.C.1., the proposed VaR Floor would include the MMA calculation.<sup>63</sup>

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

Although the Clearing Supervision Act does not specify a standard of review for an advance notice, the stated purpose of the Clearing Supervision Act is instructive: to mitigate systemic risk in the financial system and promote financial stability by, among other things, promoting uniform risk management standards for systemically important financial market utilities (SIFMUs) and strengthening the liquidity of SIFMUs.<sup>64</sup>

Section 805(a)(2) of the Clearing Supervision Act authorizes the Commission to prescribe regulations containing risk management standards for the payment, clearing, and settlement activities of designated clearing entities engaged in designated activities for which the Commission is the supervisory agency.<sup>65</sup> Section 805(b) of the Clearing

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<sup>62</sup> FICC may deem such data to be unavailable and deploy Margin Proxy when there are concerns with the quality of data provided by the vendor. See Notice of Filing, supra note 9 at 43946.

<sup>63</sup> See id.

<sup>64</sup> See 12 U.S.C. 5461(b).

<sup>65</sup> 12 U.S.C. 5464(a)(2).

Supervision Act provides the following objectives and principles for the Commission’s risk management standards prescribed under Section 805(a):<sup>66</sup>

- to promote robust risk management;
- to promote safety and soundness;
- to reduce systemic risks; and
- to support the stability of the broader financial system.

Section 805(c) provides, in addition, that the Commission’s risk management standards may address such areas as risk management and default policies and procedures, among other areas.<sup>67</sup>

The Commission has adopted risk management standards under Section 805(a)(2) of the Clearing Supervision Act and Section 17A of the Exchange Act (the “Clearing Agency Rules”).<sup>68</sup> The Clearing Agency Rules require, among other things, each covered clearing agency to establish, implement, maintain, and enforce written policies and procedures that are reasonably designed to meet certain minimum requirements for its operations and risk management practices on an ongoing basis.<sup>69</sup> As such, it is appropriate for the Commission to review advance notices against the Clearing Agency Rules and the objectives and principles of these risk management standards as described in Section 805(b) of the Clearing Supervision Act. As discussed below, the proposals in

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<sup>66</sup> 12 U.S.C. 5464(b).

<sup>67</sup> 12 U.S.C. 5464(c).

<sup>68</sup> 17 CFR 240.17ad-22. See Securities Exchange Act Release No. 68080 (October 22, 2012), 77 FR 66220 (November 2, 2012) (S7-08-11). See also Securities Exchange Act Release No. 78961 (September 28, 2016), 81 FR 70786 (October 13, 2016) (S7-03-14). FICC is a “covered clearing agency” as defined in Rule 17ad-22(a)(5).

<sup>69</sup> Id.

the Advance Notice are consistent with the objectives and principles described in Section 805(b) of the Clearing Supervision Act<sup>70</sup> and in the Clearing Agency Rules, in particular Rule 17ad-22(e)(4)(i), (e)(6)(i), and (e)(23)(ii).<sup>71</sup>

#### **A. Consistency with Section 805(b) of the Clearing Supervision Act**

The proposals in the Advance Notice are consistent with the stated objectives and principles of Section 805(b) of the Clearing Supervision Act.<sup>72</sup> Specifically, the changes proposed in the Advance Notice are consistent with promoting robust risk management, promoting safety and soundness, reducing systemic risks, and supporting the broader financial system.<sup>73</sup>

##### **1. Promoting Robust Risk Management and Safety and Soundness**

Incorporating the proposed MMA into the GSD margin methodology would be consistent with the promotion of robust risk management and safety and soundness at FICC. As described above in Section I.B., the extreme market volatilities during recent stressful market periods led to market price changes that exceeded the current VaR model's projections, generating margin amounts that were not sufficient to mitigate

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<sup>70</sup> 12 U.S.C. 5464(b).

<sup>71</sup> 17 CFR 240.17ad-22(e)(4)(i), (e)(6)(i), and (e)(23)(ii).

<sup>72</sup> 12 U.S.C. 5464(b).

<sup>73</sup> Several of the issues raised by the commenters are directed at the proposed rule change and will be addressed in that context. These comments generally relate to the proposal's impact on competition and its consistency with the Exchange Act. See Letter from Independent Dealer and Trade Association (May 7, 2024) ("IDTA Letter") at 2, 3-6; Letter from Robert Toomey, Head of Capital Markets, Managing Director/Associate General Counsel, Securities Industry and Financial Markets Association (May 22, 2024) ("SIFMA Letter") at 2, 5, 7-8 (commenting on the proposal's impact on competition). The Commission's evaluation of the Advance Notice is conducted under the Clearing Supervision Act and, as noted above, generally considers whether the proposal would promote robust risk management, promote safety and soundness, reduce systemic risks, and support the broader financial system.

FICC's credit exposure to its members' portfolios at a 99 percent confidence level.

FICC's proposed incorporation of the MMA calculation into the GSD margin methodology would result in margin levels that better reflect the risks and particular attributes of member portfolios during periods of extreme market volatility, which is consistent with promoting robust risk management.

Implementing the MMA would enable FICC to collect additional margin when the market price volatility implied by the current sensitivity VaR calculation and VaR Floor calculation is lower than the market price volatility implied by the proposed MMA calculation. In its consideration of the proposed MMA, the Commission reviewed and analyzed the: (1) Advance Notice, including the supporting exhibits that provided confidential information on the proposed MMA calculation, Impact Study (including detailed information regarding the impact of the proposed changes on the portfolios of each FICC member over various time periods), and backtesting coverage results, (2) FICC's response to the Commission's requests for additional information;<sup>74</sup> and (3) the Commission's own understanding of the performance of the current GSD margin methodology, with which the Commission has experience from its general supervision of FICC, compared to the proposed margin methodology.<sup>75</sup>

Based on the Commission's review of the Impact Study, had the proposed MMA been in place, both the VaR model backtesting coverage and the overall margin backtesting coverage would have risen above the 99 percent confidence level to 99.46

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<sup>74</sup> See supra notes 7, 11.

<sup>75</sup> In addition, because the proposals contained in the Advance Notice and the proposed rule change are the same, all information submitted by FICC was considered regardless of whether the information submitted with respect to the Advance Notice or the proposed rule change. See supra note 9.

percent and 99.33 percent, respectively, over the time period covered by the Impact Study.<sup>76</sup> Additionally, the number of VaR model backtesting deficiencies and overall margin backtesting deficiencies would have been reduced by 441 and 280, respectively.<sup>77</sup>

The proposed MMA methodology would be more likely to apply as the VaR Charge during periods of extreme market volatility because the MMA methodology is more responsive to spikes in market volatility than the sensitivity VaR calculation. As described above in Section I.C.1., the MMA calculation relies, in part, on the FHS method, which takes historical price data, removes the historical volatility estimates, and replaces them with volatility estimates that reflect current market conditions. Additionally, as described above in Section I.C.1., the decay factor used in the FHS method affects (1) whether and how the MMA would apply to determine a member's VaR Charge; (2) the peak level of margin increase or the degree of procyclicality; and (3) how quickly the margin would fall back to pre-stress levels. A faster decay (*i.e.*, smaller decay factor value), like the one FICC intends to use initially, would give more weight to more recent market events, while a slower decay would give more weight to older market events. Thus, when market volatility spikes, the MMA calculation would generate higher amounts and thereby be more likely to apply as the VaR Charge (after exceeding the sensitivity VaR calculation). Conversely, when market volatility subsides, the MMA calculation would generate lower amounts and be less likely to apply.

The Impact Study supports this analysis. If the proposed MMA calculation had been in place during the period of the Impact Study, the MMA would have applied

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<sup>76</sup> See Notice of Filing, *supra* note 9 at 43947.

<sup>77</sup> See *id.*

primarily during the recent extreme market volatility events (i.e., those in March 2020 and commencing in March 2022). In contrast, during periods of low to moderate market volatility, the MMA calculation would generally not be the greatest amount of the three calculations and thus, would not be invoked. Instead, in periods of low to moderate market volatility, the sensitivity VaR calculation is likely to be the VaR Charge for members whose portfolios do not contain long and short positions in different classes of securities that share a high degree of price correlation. For such long/short portfolios, in low to moderate volatility markets, the VaR Floor Percentage Amount calculation is more likely to be the VaR Charge. The sensitivity VaR calculation and VaR Floor Percentage Amount calculations are likely to generate sufficient margin levels above FICC's 99 percent performance targets during periods of low to moderate market volatility. Indeed, during the periods of low to moderate market volatility from January 2013 to March 2020, the GSD VaR model has generally performed above FICC's 99 percent backtesting performance targets.<sup>78</sup>

Implementing the proposed MMA should enable FICC to better manage its exposure to its members during periods of extreme market volatility by generating margin levels that meet FICC's 99 percent backtesting coverage targets. Accordingly, the proposal is consistent with promoting robust risk management because the MMA would enable FICC to better manage the relevant risks presented by the securities it clears in volatile market conditions.

Additionally, FICC proposes to clarify that if the Margin Proxy, when invoked, is lower than the VaR Floor, then the VaR Floor would be utilized as the VaR Charge with

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<sup>78</sup> See Notice of Filing, *supra* note 9 at 43943.

respect to a member's portfolio. Although Margin Proxy was not invoked during the period of the Impact Study, had the proposed changes been in place during that period, the VaR model backtesting coverage would have increased from approximately 98.17 percent to 99.38 percent and the VaR model backtesting deficiencies would have been reduced by 899 (from 1,358 to 459). The Commission agrees that ensuring the VaR Floor operates as a floor for the Margin Proxy would be more effective at mitigating risks under extreme market volatility because as proposed, the VaR Floor would include the MMA calculation. Accordingly, the proposal is consistent with promoting robust risk management because the enhanced VaR Floor would enable FICC to better manage the relevant risks, regardless of whether the sensitivity VaR calculation or Margin Proxy are invoked.

Further, by helping to ensure that FICC collects margin amounts sufficient to manage the risk associated with its members' portfolios during periods of extreme market volatility, the proposed MMA changes and Margin Proxy clarifications would help limit FICC's exposure in a member default scenario. These proposed changes would generally provide FICC with additional resources to manage potential losses arising out of a member default. Such an increase in FICC's available financial resources would decrease the likelihood that losses arising out of a member default would exceed FICC's prefunded resources and threaten the safety and soundness of FICC's ongoing operations. Accordingly, the proposals are also consistent with promoting safety and soundness at FICC.

## **2. Reducing Systemic Risks and Supporting the Stability of the Broader Financial System**

Consistent with the objectives and principles of the Clearing Supervision Act, the Commission also considers whether the proposals in the Advance Notice would reduce systemic risks and support the stability of the broader financial system.<sup>79</sup>

The proposed MMA changes and Margin Proxy clarifications are consistent with reducing systemic risks and supporting the stability of the broader financial system. As discussed above in Section I.B., FICC would access its Clearing Fund should a defaulted member's own margin be insufficient to satisfy losses to FICC caused by the liquidation of the member's portfolio. FICC proposes to add the MMA calculation to the GSD margin methodology to collect additional margin from members during periods of extreme market volatility to cover such costs, and thereby better manage the potential costs of liquidating a defaulted member's portfolio. Similarly, FICC's proposal to clarify the application of the VaR Floor to include Margin Proxy would ensure FICC's ability to collect additional margin from members if the Margin Proxy, when invoked, is lower than the VaR Floor. These changes and clarifications to the GSD margin methodology could reduce the possibility that FICC would need to mutualize among the non-defaulting members a loss arising out of the close-out process. Reducing the potential for loss mutualization could, in turn, reduce the potential resultant effects on non-defaulting members, their customers, and the broader market arising out of a member default.

One commenter states that FICC's implementation of the proposed MMA would increase costs for market participants, leading to negative effects on the broader U.S.

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<sup>79</sup> See 12 U.S.C. 5464(b).

Treasury markets.<sup>80</sup> Specifically, the commenter states that markets with high margin costs generally have fewer market participants, decreased market liquidity, wider bid/offer spreads, and encourage market participants to either exit the market or pass additional expenses to their customers.<sup>81</sup> In response, FICC states that the proposed MMA is not designed to advantage or disadvantage capital formation.<sup>82</sup> Instead, FICC states that the purpose of the proposed MMA is to manage the risk associated with member portfolios during periods of extreme market volatility.<sup>83</sup> FICC states that although the proposal's increased margin requirements could lessen liquidity for members, it is necessary and appropriate to mitigate the relevant risks.<sup>84</sup>

In considering the comments opposing FICC's implementation of the MMA calculation as proposed, the Commission considered the Advance Notice filing materials including the Impact Study, comment letters, FICC's response letter, and the Commission's own understanding of the GSD margin methodology based on the Commission's general supervision of FICC. As stated above in Section II.A.1., during the period of the Impact Study, the actual GSD VaR model backtesting coverage and overall margin backtesting coverage both fell below the 99 percent confidence level. These shortfalls are specifically attributable to the periods of extreme market volatility of March 2020 and commencing in March 2022. The Impact Study demonstrates that had the

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<sup>80</sup> See IDTA Letter at 5-6.

<sup>81</sup> See id.

<sup>82</sup> See FICC Letter at 5.

<sup>83</sup> See id.

<sup>84</sup> See id.

proposed MMA calculation been in place during that period, margin amounts would have exceeded the 99 percent backtesting coverage levels. Thus, implementing the MMA calculation would have better enabled FICC to calculate and collect margin amounts sufficient to mitigate the risks presented by its members' portfolios during periods of extreme market volatility.

The Commission acknowledges that implementing the proposed MMA would increase margin requirements during periods of extreme market volatility. However, as detailed above in Section I.C.1., the Impact Study demonstrates that the increased margin requirements attributable to the MMA at the member-level would represent relatively small percentages (*i.e.*, typically a fraction of one percent) of members' average Net Capital,<sup>85</sup> which indicates that members would likely have access to sufficient financial resources to meet the increased MMA obligation if invoked during periods of extreme market volatility. Therefore, the comment that the increased margin costs attributable to the MMA would decrease market liquidity, widen bid/offer spreads, and encourage market participants to either exit the market or pass additional expenses to their customers, do not appear likely based on the limited size of increased VaR Charges from the Impact Study. Additionally, by helping to ensure FICC collects sufficient margin to cover its exposure to members, implementing the MMA would decrease the likelihood of loss mutualization in the event of a member default, which could encourage greater market participation. Moreover, FICC has a regulatory obligation to have policies and

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<sup>85</sup> See GSD Rule 1 (Definitions – Net Capital) (defining Net Capital" to mean, as of a particular date, the amount equal to the net capital of a broker or dealer as defined in SEC Rule 15c3-1(c)(2) or any successor rule or regulation thereto) and 17 CFR 240.15c3-1(c)(2) (requiring that every broker or dealer at all times have and maintain net capital no less than a particular requirement, as set forth in the Rule).

procedures to calculate and collect margin amounts sufficient to mitigate the relevant risks presented to it by its members' portfolios.<sup>86</sup> Indeed, FICC's role as a CCP that reduces systemic risk and promotes market stability is dependent on effectively managing the relevant risks, which includes FICC's collection of sufficient margin from its members.

One commenter states that the proposed MMA would negatively affect markets by having a detrimental effect on certain trading strategies that rely on margin offsets across maturity buckets.<sup>87</sup> The commenter states that the MMA would eliminate such offsets, resulting in gross margining across maturity buckets and decreased liquidity.<sup>88</sup> In response, FICC states that the proposed MMA would not eliminate such margin offsets across maturity buckets.<sup>89</sup> Specifically, FICC states that the MMA would not differ from the current VaR model insofar as the FHS approach would likewise offset the market risk of long positions in one maturity bucket with the market risk of short positions in another maturity bucket.<sup>90</sup> Based on the Commission's review and understanding of FICC's proposed changes to the QRM Methodology,<sup>91</sup> the Commission agrees with FICC's response that the FHS approach allows for similar offsetting as the current GSD VaR

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<sup>86</sup> See 17 CFR 240.17ad-22(e)(4)(i).

<sup>87</sup> See IDTA Letter at 5 (discussing trading strategies that involve Treasury securities in separate maturity buckets, such as buyers at Treasury auctions "rolling backwards" ahead of the auction by short-selling one issue and buy a different outstanding Treasury, Butterfly Spread, and "roll down the curve").

<sup>88</sup> See id.

<sup>89</sup> See FICC Letter at 5.

<sup>90</sup> See id.

<sup>91</sup> Supra note 40.

model regarding the market risk of long positions in one maturity bucket offsetting the market risk of short positions in another maturity bucket.<sup>92</sup>

Another commenter states that FICC's proposal did not adequately address the procyclicality risk<sup>93</sup> associated with the MMA calculation.<sup>94</sup> The commenter suggests that FICC should consider revising the MMA calculation to include anti-procyclical measures that would avoid extreme reactions to changes in market volatility.<sup>95</sup> In response, FICC states that it considered and evaluated a number of anti-procyclical measures when developing the MMA proposal.<sup>96</sup> However, FICC states that, based on the outlook for interest rate volatility, FICC determined to rely on the decay factor to control the MMA's responsiveness to market volatility.<sup>97</sup>

The Commission disagrees with the comment that FICC's proposed MMA calculation does not adequately address procyclicality risk. The decay factor affects, among other things, the speed of the MMA calculation's responsiveness to spikes in extreme market volatility, as well as the speed with which the MMA calculation would generate lower numbers after such volatility subsides. FICC chose to initially set the decay factor at 0.97 – a relatively fast decay factor – to respond to market volatility

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<sup>92</sup> See FICC Letter at 5.

<sup>93</sup> Procyclicality risk with respect to margin requirements is the cycle created when a decrease in the mark-to-market value of the securities in a portfolio triggers an increase in margin requirements, which in turn, causes a further decrease in portfolio value.

<sup>94</sup> See SIFMA Letter at 6-7.

<sup>95</sup> See SIFMA Letter at 7.

<sup>96</sup> See FICC Letter at 5-6.

<sup>97</sup> See *id.*

relatively quickly.<sup>98</sup> FICC’s data demonstrate that had the MMA been in place during the period of the Impact Study, the MMA would have been invoked in a targeted manner (i.e., specifically during periods of extreme market volatility, but not during periods of low to moderate market volatility). Further, the Commission understands that FICC would be able to use the decay factor to address future interest rate volatility that may occur. Thus, the Impact Study supports FICC’s assertion that including the decay factor in the MMA calculation would have mitigated any procyclical results.

Accordingly, the Commission finds that FICC’s adoption of the proposed MMA and changes to the Margin Proxy would be consistent with the reduction of systemic risk and supporting the stability of the broader financial system.

For the reasons stated above, the changes proposed in the Advance Notice are consistent with Section 805(b) of the Clearing Supervision Act.<sup>99</sup>

#### **B. Consistency with Rule 17ad-22(e)(4)(i)**

Rule 17ad-22(e)(4)(i) requires that FICC establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by maintaining sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.<sup>100</sup>

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<sup>98</sup> FICC could adjust the decay factor in accordance with the Model Risk Management Framework. FICC would analyze the decay factor to evaluate its sensitivity and impact to the model performance pursuant to the model performance monitoring required under the Model Risk Management Framework. Supra note 29.

<sup>99</sup> 12 U.S.C. 5464(b).

<sup>100</sup> 17 CFR 240.17ad-22(e)(4)(i).

The proposals in the Advance Notice are consistent with Rule 17ad-22(e)(4)(i) under the Exchange Act.<sup>101</sup> As described above in Section II.A.1., the current GSD VaR model generated margin amounts that were not sufficient to mitigate FICC's credit exposure to its members' portfolios at the 99 percent backtesting confidence level during periods of extreme market volatility, particularly during March 2020 and beginning in March 2022. The Impact Study demonstrates that had the proposed MMA calculation been in place during that period, margin amounts would have exceeded the 99 percent backtesting coverage levels. Therefore, adding the MMA calculation to the GSD margin methodology should better enable FICC to calculate and collect margin amounts that are sufficient to mitigate FICC's credit exposure to its members' portfolios during periods of extreme market volatility.

Additionally, FICC proposes to clarify that if the Margin Proxy, when invoked, is lower than the VaR Floor, then the VaR Floor would be utilized as the VaR Charge with respect to a member's portfolio. Although Margin Proxy was not invoked during the period of the Impact Study, had the proposed changes been in place during that period, the VaR model backtesting coverage would have been increased to exceed the 99 percent backtesting coverage level. Therefore, the proposed clarifications regarding the applicability of the VaR Floor when Margin Proxy is invoked would help ensure FICC's ability to manage its credit exposures to members by maintaining sufficient financial resources to cover such exposures fully with a high degree of confidence.

Accordingly, for the reasons discussed above, the proposed MMA changes and Margin Proxy clarifications are reasonably designed to enable FICC to effectively

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<sup>101</sup> See id.

identify, measure, monitor, and manage its credit exposure to participants, consistent with Rule 17ad-22(e)(4)(i).<sup>102</sup>

**C. Consistency with Rule 17ad-22(e)(6)(i)**

Rule 17ad-22(e)(6)(i) requires that FICC establish, implement, maintain and enforce written policies and procedures reasonably designed to cover its credit exposures to its participants by establishing a risk-based margin system that, at a minimum, considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market, and calculates margin sufficient to cover its potential future exposure to participants.<sup>103</sup>

The proposals in the Advance Notice are consistent with Rule 17ad-22(e)(6)(i). As described above in Section II.A.1., the Impact Study demonstrates that the current VaR model generated margin deficiencies during periods of extreme market volatility, whereas implementing the proposed MMA changes and Margin Proxy clarifications would result in VaR Charges that reflect the risks of member portfolios during such periods better than the current GSD VaR model. Moreover, FICC's inclusion of the decay factor in the MMA calculation appropriately limits invoking the MMA as the VaR Charge to periods of extreme market volatility. As described above in Section II.A.1., the decay factor affects, among other things, the peak level of margin increase or the degree of procyclicality and how quickly the margin would fall back to pre-stress levels. FICC chose to initially set the decay factor at 0.97 – a relatively fast decay factor – to be

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<sup>102</sup> See id.

<sup>103</sup> 17 CFR 240.17ad-22(e)(6)(i).

quickly responsive to market volatility.<sup>104</sup> FICC's data demonstrate that had the MMA been in place during the period of the Impact Study, the MMA would have been invoked in a targeted manner (*i.e.*, specifically during periods of extreme market volatility, but not during periods of low to moderate market volatility). Thus, the MMA is specifically designed to enable FICC to collect margin amounts commensurate with the relevant risks associated with member portfolios during periods of extreme market volatility. The proposal would provide FICC with a margin methodology better designed to enable FICC to cover its credit exposures to its members by enhancing FICC's risk-based margin system to produce margin levels commensurate with the relevant risks during periods of extreme market volatility.

Several commenters addressed FICC's Impact Study. Specifically, one commenter states that the Impact Study is too limited, providing backtesting data with extremely uneven daily impacts, thereby rendering it impossible to properly assess the MMA's impacts.<sup>105</sup> Another commenter states that FICC underestimates the MMA's impacts by using the full two-year period of the Impact Study to calculate average impacts when the actual period of increased volatility only covers a nine-month period.<sup>106</sup> This commenter states that while FICC expressed the increase in margin requirements in terms of long-term averages, broker-dealers actually plan for capitalization based on

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<sup>104</sup> FICC could adjust the decay factor in accordance with the Model Risk Management Framework. FICC would analyze the decay factor to evaluate its sensitivity and impact to the model performance pursuant to the model performance monitoring required under the Model Risk Management Framework. Supra note 29.

<sup>105</sup> SIFMA Letter at 6.

<sup>106</sup> See IDTA Letter at 3 (arguing that calculating averages using a two-year period instead of a nine-month period decreases the average 2.66 times).

meeting their largest margin requirement rather than their average capital usage.<sup>107</sup> These commenters state that while FICC's impact analysis cited examples of members with the largest average percentage and dollar increases resulting from the MMA, those market participants are either too small or too large to be representative of the proposal's impact on other members.<sup>108</sup> The commenters state that the actual effects of the MMA on middle-market dealers will be higher than FICC's cited examples.<sup>109</sup> These two commenters suggest that alternative impact measurements would provide a more accurate analysis of the proposed MMA's impacts.<sup>110</sup>

In response to these comments, FICC states that due to confidentiality restrictions on releasing member-level data, the public-facing Advance Notice filing narrative analyzed the Impact Study using anonymized data and averages of maximum dollar and percentage changes.<sup>111</sup> However, FICC provided the Commission with expanded and detailed daily member-level Impact Study data confidentially, as part of the Advance

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<sup>107</sup> See IDTA Letter at 3.

<sup>108</sup> See IDTA Letter at 3; SIFMA Letter at 6.

<sup>109</sup> See e.g., IDTA Letter at 3-4 (contrasting FICC's Impact Study analysis that expresses the largest member increase that would have resulted from the MMA as 0.21 percent of net capital, against the average margin increase that the MMA would have added for IDTA members of 5.1 percent of net capital, or 16.0 percent of net capital for the top 100 days in terms of margin increases); see SIFMA Letter at 6.

<sup>110</sup> See IDTA Letter at 3-4, 7; SIFMA Letter at 6. For example, one commenter suggests that FICC should express the impact as the average percent increase for the top 100 most stressful days. See IDTA Letter at 3-4 (stating that the average percentage increase for the top 100 most stressful days in terms of margin increases for IDTA members, the more relevant metric in terms of capital planning in actual practice was 37.23 percent or \$27.52 million). The other commenter suggests that a better measure of liquidity impact than average daily data would be the peak aggregate additional margin that would be required for both a 1-day and 5-day period. See SIFMA Letter at 6.

<sup>111</sup> See FICC Letter at 7.

Notice filing in Exhibit 3.<sup>112</sup> FICC further states that both prior and subsequent to filing the Advance Notice, FICC actively engaged with members on multiple occasions, conducting outreach to each member in order to provide notice of the proposal along with individualized anticipated impacts for each member.<sup>113</sup>

In considering the comments critical of the Impact Study and FICC's analyses thereof, the Commission considered the Advance Notice (including the Impact Study<sup>114</sup> and other confidentially filed data<sup>115</sup>), comment letters, FICC's response letter, and the Commission's own understanding of the GSD margin methodology based on its general supervision of FICC. Based on the Commission's review and analysis of these materials, the Commission disagrees with the comments suggesting that FICC's Impact Study and analyses are inaccurate and/or misleading. In the Advance Notice narrative, FICC described the Impact Study in anonymized terms, highlighting averages and maximum

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<sup>112</sup> See id.

<sup>113</sup> See FICC Letter at 6.

<sup>114</sup> Exhibit 3 includes, among other things, the following confidentially filed information covering the period from July 1, 2021 through June 30 2023 : actual daily VaR amounts for each member; daily VaR amounts for each member had MMA been implemented; daily VaR increase (reflected in dollars, percent, and percent of Net Capital), if any, attributable to MMA; average member-level VaR amounts (reflected in dollars and average of Net Capital); average member-level VaR amounts had MMA been implemented; average member-level VaR increase (reflected in percent and percent of Net Capital), if any, attributable to MMA; further analysis of the foregoing data to determine minimum, maximum, and average increases to member-level VaR amounts, Net Capital amounts, and CCP-level VaR amounts; member-level VaR amounts had Margin Proxy been invoked (daily and summarized); and member-level backtesting results (daily and summarized).

<sup>115</sup> FICC's responses to the Commission's requests for additional information include, among other things, the following confidentially filed information: FICC's proprietary information regarding the GSD margin methodology; backtesting data and analyses of daily member-level sensitivity VaR, Margin Proxy, and MMA amounts with alternative stress periods; daily member-level backtesting, sensitivity VaR, and MMA amounts during the Impact Study period specific to bond and MBS positions; and daily member-level sensitivity VaR and MMA amounts for the period of February 1, 2024 through July 31, 2024, with analysis relating to the FICC-CME cross-margining arrangement.

dollar and percentage changes, due to the confidential nature of the member-level transactions that comprise the underlying data. However, FICC filed the confidential member-level data with the Commission in Exhibit 3 to the Advance Notice filing. FICC also provided relevant confidential data in its response to the Commission's requests for additional information.<sup>116</sup> Additionally, in the Commission's supervisory role, the Commission routinely collects confidential margin-related data from FICC. These data sources enable the Commission to evaluate the effects of the MMA on a member-by-member basis.

The purpose of the Impact Study and FICC's analyses thereof in the publicly available Advance Notice filing materials is to highlight comparisons of the GSD VaR model's performance with and without incorporating the MMA and to highlight the proposal's general impacts on members using anonymized data and averages of maximum dollar and percentage changes. FICC did not state that its public discussion of the Impact Study was the sole source of data for the Commission and the public to utilize in evaluating the proposals in the Advance Notice. Rather, FICC provided additional detailed member-level data confidentially, both to members and the Commission, to more fully evaluate the impacts of the proposals in the Advance Notice. Regarding the comments that FICC's analysis of the Impact Study data presented an inaccurate picture of the MMA's impacts,<sup>117</sup> the Commission recognizes that FICC provided individual

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<sup>116</sup> Supra notes 7, 11.

<sup>117</sup> These comments include regarding: FICC's use of the two-year period of the Impact Study instead of the 9-month period of extreme market volatility when presenting average impacts (see IDTA Letter at 3); FICC's use of long-term average margin increases instead of maximum margin increases resulting from implementing the MMA (see id.); FICC's examples of members with the largest average percentage and dollar increases resulting from the MMA (see IDTA Letter at 3;

impact studies for each member that included the average impact for the entire period of the Impact Study as well as the average impact on those days that the proposed MMA would have been applied for each member.<sup>118</sup> Therefore, the commenters' concerns regarding the Impact Study do not take into account that both the Commission and FICC's members also reviewed more detailed confidential data to better understand the specific member-level impacts of the proposals. The comment that FICC's public discussion of the Impact Study presented limited data, rendering it impossible to properly evaluate the MMA's impacts, does not take into account that FICC provided more comprehensive confidential data to the Commission and members that was sufficient to properly assess the MMA's impacts. Specifically, such data includes, among other things, actual daily VaR Charge for each member, hypothetical daily VaR Charge for each member had the MMA been in place, hypothetical daily VaR Charge for each member had Margin Proxy been invoked, analyses of increases attributable to the MMA, and numerous backtesting analyses. The comment that FICC's public discussion of the Impact Study underestimated the MMA's impacts by calculating the average impacts based on the full two-year period rather than the nine-month period of volatility does not take into account that FICC confidentially provided individual impact studies for each member that included average impacts on each day that the MMA would have applied to the member.<sup>119</sup> Similarly, the comment that FICC's public discussion of the Impact Study expressed the increase in margin requirements in terms of long-term averages as opposed

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<sup>118</sup> see SIFMA Letter at 6); and preferred alternative impact measurements (see IDTA Letter at 3-4; see SIFMA Letter at 6).

<sup>119</sup> See FICC Letter at 7.

<sup>119</sup> See id.

to largest margin requirements does not take into account that FICC confidentially provided individual impact studies for each member indicating maximum margin increases on each day that the MMA would have applied to the member.<sup>120</sup> The comment that FICC’s public discussion of the Impact Study cited impacted members that are not representative and underestimate the MMA’s impacts on middle-market participants does not take into account that FICC provided member-level impact data to each member.<sup>121</sup>

One commenter also states that FICC should expand the Impact Study to cover the March 2020 period of stress in light of FICC’s statements that the MMA proposal was driven, in part, by the VaR model’s underperformance during that period.<sup>122</sup> In response, FICC states that inclusion of that data is not necessary because the Impact Study’s two-year period achieves the purpose of demonstrating the effectiveness of the proposed MMA during periods of both low and high market volatility.<sup>123</sup> The Commission agrees that the Impact Study’s two-year period sufficiently demonstrates the performance of the proposed MMA during periods of both low and high market volatility, as the two-year study period also included periods of both low and high market volatility. Inclusion of March 2020 in the Impact Study is not required for the Commission to evaluate the responsiveness of the MMA.

Accordingly, the proposals in the Advance Notice are consistent with Rule 17ad-22(e)(6)(i) because the new MMA margin calculation and Margin Proxy clarifications

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<sup>120</sup> See id.

<sup>121</sup> See id.

<sup>122</sup> See SIFMA Letter at 6.

<sup>123</sup> See FICC Letter at 6.

should better enable FICC to establish a risk-based margin system that considers and produces relevant margin levels commensurate with the risks associated with liquidating participant portfolios in a default scenario during periods of extreme market volatility.<sup>124</sup>

**D. Consistency with Rule 17ad-22(e)(23)(ii)**

Rule 17ad-22(e)(23)(ii) requires that FICC establish, implement, maintain and enforce written policies and procedures reasonably designed to provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in FICC.<sup>125</sup>

One commenter states that FICC's proposals in the Advance Notice lack transparency, quick implementation, and tools and resources to support market preparedness to identify risks and costs associated with how FICC calculates margin amounts.<sup>126</sup> Specifically, the commenter urges FICC to provide members with (1) daily VaR calculations, (2) an MMA calculator, and (3) a phased implementation of the MMA, including a parallel run period where the MMA is calculated but not invoked.<sup>127</sup>

In response, FICC states that it provides tools and resources to enable members to determine their margin requirements and the impact of FICC's proposals.<sup>128</sup> Specifically, FICC maintains the Real Time Matching Report Center, Clearing Fund Management System, FICC Customer Reporting Service, and FICC Risk Client Portal which are client

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<sup>124</sup> 17 CFR 240.17ad-22(e)(6)(i).

<sup>125</sup> 17 CFR 240.17ad-22(e)(23)(ii).

<sup>126</sup> See SIFMA Letter at 7-8.

<sup>127</sup> See id.

<sup>128</sup> See FICC Letter at 7.

accessible websites for accessing risk reports and other risk disclosures.<sup>129</sup> These resources enable members to view Clearing Fund requirement information and margin component details, including portfolio breakdowns by CUSIP and amounts attributable to the sensitivity-based VaR model.<sup>130</sup> Members are also able to view data on market amounts for current clearing positions and associated VaR Charges.<sup>131</sup> Additionally, the FICC Client Calculator enables members to, among other things, enter “what-if” position data to determine hypothetical VaR Charges before trade execution. FICC states that as of June 24, 2024, FICC is in the process of enhancing the FICC Client Calculator to incorporate the MMA and FICC expects the enhancement to be available to members prior to implementation of the MMA, subject to the Commission’s approval.<sup>132</sup> FICC also states that it is currently developing a tool that would enable non-members to assess potential VaR Charges (including MMA) as well.<sup>133</sup>

The extensive tools and resources that FICC makes available to members should enable members to obtain individualized information to determine their Clearing Fund requirements, margin component details, and assess the impact of FICC’s proposals. Additionally, FICC’s multiple member outreach efforts (before and after development of the proposals in the Advance Notice) provided members with relevant individualized impact analyses with which to evaluate the proposals in the Advance Notice.

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<sup>129</sup> [See id.](#)

<sup>130</sup> [See id.](#)

<sup>131</sup> [See id.](#)

<sup>132</sup> [See id.](#)

<sup>133</sup> [See id.](#)

Accordingly, FICC has provided tools and resources sufficient for its members to evaluate their daily VaR and other margin-related calculations, rendering a phased implementation of the proposed MMA unwarranted.

Based on the foregoing, FICC has provided sufficient information, tools, and resources to enable members to identify and evaluate the relevant risks and costs associated with the changes proposed in the Advance Notice, consistent with Rule 17ad-22(e)(23)(ii).<sup>134</sup>

### **III. CONCLUSION**

IT IS THEREFORE NOTICED, pursuant to Section 806(e)(1)(I) of the Clearing Supervision Act, that the Commission DOES NOT OBJECT to Advance Notice (SR-FICC-2024-801) and that FICC is AUTHORIZED to implement the proposed change as of the date of this notice or the date of an order by the Commission approving proposed rule change SR-FICC-2024-003, whichever is later.

By the Commission.

**Sherry R. Haywood,**

Assistant Secretary.

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<sup>134</sup> 17 CFR 240.17ad-22(e)(23)(ii).