

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-89142; File No. SR-ICC-2020-002)

June 24, 2020

Self-Regulatory Organizations; ICE Clear Credit LLC; Order Approving Proposed Rule Change Relating to the ICC Risk Management Model Description, ICC Stress Testing Framework, ICC Liquidity Risk Management Framework, ICC Back-Testing Framework, and ICC Risk Parameter Setting and Review Policy

I. Introduction

On January 14, 2020, ICE Clear Credit LLC (“ICC”) filed with the Securities and Exchange Commission (“Commission”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> a proposed rule change to amend ICC’s Risk Management Model Description, Stress Testing Framework, Liquidity Risk Management Framework, Back-Testing Framework, and Risk Parameter Setting and Review Policy (together, the “Risk Policies”) in connection with the clearing of credit default index swaptions. The proposed rule change was published for comment in the Federal Register on January 31, 2020.<sup>3</sup> On March 13, 2020, the Commission designated a longer period of time for Commission action on the proposed rule change until April 30, 2020.<sup>4</sup> On April 29, 2020, the Commission issued an

---

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

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

<sup>3</sup> Self-Regulatory Organizations; ICE Clear Credit LLC; Notice of Filing of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice Relating to the ICC Risk Management Model Description, ICC Stress Testing Framework, ICC Liquidity Risk Management Framework, ICC Back-Testing Framework, and ICC Risk Parameter Setting and Review Policy; Exchange Act Release No. 88047 (Jan. 27, 2020); 85 Fed. Reg. 5756 (Jan. 31, 2020) (SR-ICC-2020-002) (“Notice”).

<sup>4</sup> Self-Regulatory Organizations; ICE Clear Credit LLC; Notice of Designation of Longer Period of Time for Commission Action on Proposed Rule Change Relating to the ICC Risk Management Model Description, ICC Stress Testing Framework, ICC Liquidity Risk Management Framework, ICC Back-Testing Framework, and ICC Risk Parameter

order instituting proceedings under Section 19(b)(2)(B) of the Act<sup>5</sup> to determine whether to approve or disapprove the proposed rule change.<sup>6</sup> The Commission did not receive comments regarding the proposed rule change. For the reasons discussed below, the Commission is approving the proposed rule change.

## II. Description of the Proposed Rule Change

The proposed rule change would amend the Risk Policies in connection with ICC's proposed clearing of credit default index swaptions ("Index Swaptions").<sup>7</sup> Pursuant to an Index Swaption, one party (the "Swaption Buyer") has the right (but not the obligation) to cause the other party (the "Swaption Seller") to enter into an index credit default swap transaction at a pre-determined strike price on a specified expiration date on specified terms. In the case of Index Swaptions that would be cleared by ICC, the underlying index credit default swap would be limited to certain CDX and iTraxx Europe index credit default swaps that are accepted for clearing by ICC and would be automatically cleared by ICC upon exercise of the Index Swaption by the Swaption Buyer in accordance with its terms. The Commission has previously approved changes that ICC made to its Rules, End-of-Day Price Discovery Policies and Procedures, and

---

Setting and Review Policy; Exchange Act Release No. 88379 (Mar. 13, 2020); 85 Fed. Reg. 15829 (Mar. 19, 2020) (SR-ICC-2020-002).

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

<sup>6</sup> Self-Regulatory Organizations; ICE Clear Credit LLC; Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Change Relating to the ICC Risk Management Model Description, ICC Stress Testing Framework, ICC Liquidity Risk Management Framework, ICC Back-Testing Framework, and ICC Risk Parameter Setting and Review Policy; Exchange Act Release No. 88775 (Apr. 29, 2020); 85 Fed. Reg. 26774 (May 5, 2020) (SR-ICC-2020-002).

<sup>7</sup> Index Swaptions are also referred to herein and in the Risk Policies as "index options" or "index CDS options", or in similar terms.

Risk Management Framework related to the clearing of Index Swaptions (the “Swaption Rule Filing”).<sup>8</sup> As explained in the Swaption Rule Filing, ICC would need to adopt certain related policies and procedures in preparation for the launch of clearing of Index Swaptions, including those set out in this filing, and would not commence clearing of Index Swaptions until such policies and procedures have been approved by the Commission or otherwise become effective.<sup>9</sup>

As discussed above, the proposed rule change would amend the Risk Management Model Description, the Stress Testing Framework, Liquidity Risk Management Framework, Back-Testing Framework, and Risk Parameter Setting and Review Policy.

A. Amendments to the Risk Management Model Description

The proposed rule change would amend ICC’s Risk Management Model Description (“RMMD”) to take into account ICC clearing and settling Index Swaptions. Specifically, the proposed rule change would extend to Index Swaptions the existing methodology that ICC uses to determining initial margin and guaranty fund requirements for index and single-name CDS. In addition, the proposed rule change would make typographical corrections and would re-number and update cross-references.

i. Initial Margin

The RMMD provides an overall description of ICC’s initial margin methodology describes in detail each component thereof. The proposed rule change would first amend the

---

<sup>8</sup> Self-Regulatory Organizations; ICE Clear Credit LLC; Notice of Filing of Filing of Partial Amendment No. 1 and Order Granting Accelerated Approval of Proposed Rule Change, as Modified by Partial Amendment No. 1, Relating to the ICC Rules, ICC End-of-Day Price Discovery Policies and Procedures, and ICC Risk Management Framework, Exchange Act Release No. 87297 (Oct. 15, 2019); 84 Fed. Reg. 56270 (Oct. 21, 2019) (SR-ICC-2019-007).

<sup>9</sup> Id. at 56270, n. 7.

overall description of ICC's initial margin methodology to add a general definition for Index Swaptions. The proposed rule change would define an Index Swaption as an option instrument that is a specific combination of underlying index, expiration date, strike price, optionality type, exercise style, denomination currency, and transaction type. Moreover, the proposed rule change would specify that for purposes of the initial margin methodology, ICC would treat an Index Swaption as part of the risk sub-factor underlying the index referenced by the Index Swaption.

The proposed rule change would next amend the description of each component of ICC's initial margin methodology to explain how ICC would apply that component to Index Swaptions: jump-to-default, liquidity charge, concentration charge, interest rate sensitivity, basis risk, spread response, and anti-procyclicality.

Beginning with the jump-to-default requirement, the proposed rule change would specify that ICC would determine an Index Swaption's jump-to-default requirement by adding the Index Swaption's delta equivalent notional amount to the aggregate outright position in index CDS and then determining the jump-to-default requirement for that combined position.

With respect to the liquidity charge, the proposed rule change would add an Index Swaption component to the liquidity charge for the outright index CDS position. The proposed rule change would set out the formulas that ICC would use to calculate an Index Swaption component of the liquidity charge, and the formulas would take into account the direction of the underlying position (bought or sold protection), other option characteristics (such as call or put and the underlying index), bid-offer width scaling factors, and the liquidity charge for the underlying CDS position. ICC would calculate the specific liquidity charge for an Index Swaption position by adding together the instrument level liquidity charges for all Index Swaptions that share the same effective underlying directionality. Finally, ICC's proposed

approach for Index Swaptions would not provide portfolio benefits between the Index Swaption position and the outright underlying index position, meaning that ICC would not reduce the liquidity charge to account for offsets between the Index Swaption position and the outright underlying index position.

For the concentration charge, the proposed rule change would set out the formulas that ICC would use to calculate the concentration charge for Index Swaptions. ICC would base the calculation on each Index Swaption's effective notional amount and 5-year equivalent analog. Moreover, the proposed rule change would amend the overall concentration charge analysis to consider Index Swaption positions combined with outright index CDS positions.

For the interest rate sensitivity requirement, the proposed rule change would extend the existing approach for index CDS to Index Swaptions. The proposed rule change would adjust this approach to account for price changes for Index Swaptions. Overall, ICC would use the interest rate sensitivity requirement to account for the risk associated with changes in the default-free discount interest rate term structure used to price Index Swaption instruments.

With respect to basis risk, the proposed rule change would calculate basis risk requirements for Index Swaptions based on decomposed index positions. Similar to the liquidity charge, the proposed rule change would also specify that Index Swaptions would not be eligible for decomposition benefits in terms of long-short offsets.

For the spread response component of initial margin, the proposed rule change would incorporate an options-implied credit spread distribution. Specifically, ICC would model an implied distribution of credit spread log-returns for each put and call instrument at each given expiry, such that the implied distribution option prices would be as close as possible to the option prices established via the end-of-day process. The proposed rule change would also make

amendments to address the determination of expected options payoffs, forward prices and spreads, and shape parameters for swaption instruments with the relevant expiry, for purposes of determining the relevant distribution of implied prices. Finally, the proposed rule change would add formulas to the profit and loss estimates to take into account Index Swaptions.

With respect to the anti-procyclicality aspect of initial margin, currently the RMMD describes how ICC examines instrument price changes observed during the Lehman Brothers default, including consideration of the greatest price decreases between end-of-day prices on September 11, 2008 and any of the next five consecutive trading days. The proposed rule change would extend this period for consideration to the next six consecutive trading days instead of five. The proposed rule change would also make this change for the opposite Lehman Brothers scenario. The proposed rule change would also add formulas to compute the profit and loss for Index Swaptions under these scenarios. Finally, to determine the impact of price change on Index Swaption prices, ICC would re-price the Index Swaptions instruments in the underlying stress scenarios.

ii. Guaranty Fund

The proposed rule change would add Index Swaptions to ICC's calculation of Guaranty Fund requirements. Under the proposed rule change, ICC would combine the Index Swaption profit and loss with the index CDS profit and loss to determine the worst combined profit and loss for both Index Swaptions and Index CDS, and then use that amount to determine Guaranty Fund requirements. The proposed rule change would also add language to explain the assumptions that ICC uses when computing the profit and loss for Index Swaptions.

B. Liquidity Risk Management Framework

The proposed rule change would amend the Liquidity Risk Management Framework to add references to Index Swaptions and to further explain how ICC would consider the liquidity

risk associated with Index Swaptions. Specifically, the proposed rule change would amend the Liquidity Risk Management Framework to require that ICC consider extreme but plausible scenarios for Index Swaptions when engaging in stress testing. The proposed rule change would further add language to explain the Index Swaption specific scenarios and how ICC creates them, including the assumptions that ICC uses when creating the scenarios.

C. Risk Parameter Setting and Review Policy

The proposed rule change would revise the Risk Parameter Setting and Review Policy to describe the parameters associated with the liquidity charge, concentration charge, and spread response components for Index Swaptions, as described above. The proposed rule change would also describe the assumptions maintained for purposes of pricing Index Swaptions. Finally, consistent with parameters that ICC uses for single-name and index CDS,<sup>10</sup> the proposed rule change would require that ICC's Risk Management Department review the parameters and assumptions associated with Index Swaptions at least monthly and present any proposed updates to the Risk Working Group.

Currently, the Risk Parameter Setting and Review Policy explains the analyses that ICC performs to explore the sensitivity of the outputs of ICC's risk management model to certain core parameters.<sup>11</sup> The proposed rule change would likewise require that ICC perform sensitivity analysis of estimates used for Index Swaptions. As part of this sensitivity analysis, the proposed rule change would also require that ICC use alternative assumptions and methods

---

<sup>10</sup> Self-Regulatory Organizations; ICE Clear Credit LLC; Order Approving Proposed Rule Change Relating to the ICC Risk Parameter Setting and Review Policy; Exchange Act Release No. 85495 (Apr. 3, 2019); 84 Fed. Reg. 14158 (Apr. 9, 2019) (SR-ICC-2019-002).

<sup>11</sup> Id.

for implied distributions and other factors to provide supplementary information to assess on an ongoing basis the validity and quality of assumptions used to price Index Swaptions.

Finally, the proposed rule change would add references to Index Swaptions as appropriate and make clarifying amendments and corrections to the Risk Parameter Setting and Review Policy.

D. Back-Testing Framework

The proposed rule change would amend the Back-Testing Framework to ensure that ICC conducts back-testing with respect to Index Swaptions. The proposed rule change would do so by adding five special strategy portfolios to assess hypothetical positions in Index Swaptions. As with other special strategy portfolios, ICC would use the back-testing results for the special strategy portfolios involving Index Swaptions to identify and assess potential weaknesses in the risk management model with respect to Index Swaptions.

Currently, the Back-Testing Framework requires that ICC Risk report results of back-testing on a univariate basis, meaning per instrument and risk factor, periodically and as appropriate depending on market conditions.<sup>12</sup> The proposed rule change would similarly require that ICC conduct periodic univariate back-testing analysis on Index Swaptions and report the exceedances as an average over all strikes for each time-to-expiry strip.

Currently, the Back-Testing Framework provides guidelines for remediating poor back-testing results.<sup>13</sup> The proposed rule change would likewise set out requirements for remediating

---

<sup>12</sup> Self-Regulatory Organizations; ICE Clear Credit LLC; Order Approving Proposed Rule Change Relating to the ICE CDS Clearing: Back-Testing Framework; Exchange Act Release No. 85357 (Mar. 19, 2019); 84 Fed. Reg. 11146 (Mar. 25, 2019) (SR-ICC-2019-001).

<sup>13</sup> Id.



poor back-testing results with respect to Index Swaptions. Specifically, under the Back-Testing Framework as amended, if ICC found that poor back-testing results were directly related to Index Swaptions, it would conduct an analysis of the CDS index option implied distribution assumptions, estimation techniques and estimated parameters. The proposed rule change would also require that the ICC Risk Management Department review results and statistical assumptions related to Index Swaptions. If the back-testing results based on daily parameter estimates did not exhibit poor performance, the ICC Risk Management Department could immediately update the statistical parameters and increase the frequency of parameter updates. If the daily parameter updates did not remediate poor back-testing results, the ICC Risk Management Department could recalibrate and update certain scaling factors related to Index Swaptions.

E. Stress Testing Framework

ICC uses stress testing to establish if its available financial resources are sufficient to cover hypothetical losses associated with uncollateralized stress losses in extreme but plausible scenarios of the two greatest groups of Clearing Participants that fall under a common parent entity (a “Clearing Participant Affiliate Group”). The proposed rule change would stress test Index Swaptions by applying each of the defined stress scenario categories to Index Swaptions. The proposed rule change would further explain that for each of the stress scenario categories, ICC would create Index Swaption pricing scenarios by pricing the option instruments using the calibrated implied distribution, at the corresponding underlying stress levels and stress options-implied levels associated with the various pricing scenarios. Moreover, for each of the stress scenario categories the proposed rule change would explain in detail how ICC would apply that category to Index Swaptions. Finally, the proposed rule change would make other conforming changes to incorporate references to Index Swaptions throughout the Stress Testing Framework.

### III. Discussion and Commission Findings

Section 19(b)(2)(C) of the Act directs the Commission to approve a proposed rule change of a self-regulatory organization if it finds that such proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to such organization.<sup>14</sup> For the reasons given below, the Commission finds that the proposed rule change is consistent with Section 17A(b)(3)(F) of the Act<sup>15</sup> and Rules 17Ad-22(b)(2), (b)(3), and (d)(8) thereunder.<sup>16</sup>

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

Section 17A(b)(3)(F) of the Act requires, among other things, that the rules of a clearing agency, like ICC, be designed to promote the prompt and accurate clearance and settlement of securities transactions and, to the extent applicable, derivative agreements, contracts, and transactions, as well as to assure the safeguarding of securities and funds which are in its custody or control or for which it is responsible, and, in general, to protect investors and the public interest.<sup>17</sup> The Commission believes that the proposed changes to the Risk Policies generally should help to ensure that ICC collects sufficient Initial Margin and Guaranty Fund requirements for clearing Index Swaptions. For example, by amending ICC's Risk Management Model Description to apply ICC's risk management model to Index Swaptions, including Initial Margin and Guaranty Fund requirements, the Commission believes the proposed rule change should help to ensure that ICC collects Initial Margin and Guaranty Fund contributions necessary to manage

---

<sup>14</sup> 15 U.S.C. 78s(b)(2)(C).

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

<sup>16</sup> 17 CFR 240.17Ad-22(b)(2), (b)(3), (d)(8).

<sup>17</sup> 15 U.S.C. 78q-1(b)(3)(F).

the risks associated with clearing Index Swaptions. Similarly, by applying the Stress Testing Framework to Index Swaptions, the Commission believes that the proposed rule change should help to ensure that ICC maintains sufficient available financial resources to cover hypothetical losses associated with Index Swaptions for the two greatest Clearing Participant Affiliate Group uncollateralized stress losses in extreme but plausible scenarios.

In addition, by applying the Risk Parameter Setting and Review Policy to Index Swaptions, the Commission believes the proposed rule change should help to ensure that the parameters and assumptions that ICC uses in establishing the Initial Margin and Guaranty Fund requirements associated with Index Swaptions are appropriately reviewed and calibrated. Finally, by applying the Back-Testing Framework to Index Swaptions, the Commission believes the proposed rule change should help to ensure that ICC tests the requirements produced by the risk management model with respect to clearing Index Swaptions and should therefore help to ensure the sound operation of the risk management model with respect to Index Swaptions.

Moreover, the Commission also believes the proposed rule change should help to ensure that ICC maintains adequate liquid resources for clearing Index Swaptions. Specifically, in applying the Liquidity Risk Management Framework to the clearing of Index Swaptions, the Commission believes the proposed rule change should help to ensure that ICC is able to manage the liquidity risk associated with, and has sufficient liquid resources to meet the liquidity demands resulting from, clearing Index Swaptions.

By helping to ensure that ICC collects and maintains sufficient Initial Margin and Guaranty Fund requirements for clearing Index Swaptions, which ICC would use to manage the credit exposures associated with clearing Index Swaptions, the Commission believes that the proposed rule change should help improve ICC's ability to avoid losses that could result from the

miscalculation of ICC's credit exposures resulting from clearing Index Swaptions. Similarly, the Commission believes the proposed rule change should help ICC to avoid potential losses that could result from mismanaging the liquidity risks associated with, or having insufficient liquid resources to satisfy the liquidity demands resulting from, clearing Index Swaptions. Because these losses could disrupt ICC's ability to operate, and thus clear and settle securities transactions, the Commission finds the proposed rule change should promote the prompt and accurate clearance and settlement of securities transactions. Because such losses could also threaten access to securities and funds in ICC's control, the Commission finds the proposed rule change should help assure the safeguarding of securities and funds that are in the custody or control of ICC or for which it is responsible.

Therefore, the Commission finds that the proposed rule change should promote the prompt and accurate clearance and settlement of securities transactions and assure the safeguarding of securities and funds in ICC's custody and control, consistent with the Section 17A(b)(3)(F) of the Act.<sup>18</sup>

B. Consistency with Rule 17Ad-22(b)(2)

Rule 17Ad-22(b)(2) requires that ICC establish, implement, maintain and enforce written policies and procedures reasonably designed to use margin requirements to limit its credit exposures to participants under normal market conditions and use risk-based models and parameters to set margin requirements and review such margin requirements and the related risk-based models and parameters at least monthly.<sup>19</sup> As discussed above, the proposed rule change would amend ICC's Risk Management Model Description to apply ICC's Initial Margin

---

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

<sup>19</sup> 17 CFR 240.17Ad-22(b)(2).

requirements to Index Swaptions, which the Commission believes should help to ensure that ICC uses margin requirements to limit its credit exposures with respect to Index Swaptions.

Moreover, in applying the Risk Parameter Setting and Review Policy to Index Swaptions, the proposed rule change would require that ICC's Risk Management Department reviews the parameters and assumptions associated with Index Swaptions at least monthly and present any proposed updates to the Risk Working Group. Therefore, for these reasons, the Commission finds that the proposed rule change is consistent with Rule 17Ad-22(b)(2).<sup>20</sup>

C. Consistency with Rule 17Ad-22(b)(3)

Rule 17Ad-22(b)(3) requires that ICC establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain sufficient financial resources to withstand, at a minimum, a default by the two participant families to which it has the largest exposures in extreme but plausible market conditions.<sup>21</sup> As discussed above, the proposed rule change would amend ICC's Risk Management Model Description to apply ICC's Guaranty Fund requirements to Index Swaptions, which the Commission believes should help to ensure that ICC maintains sufficient financial resources to withstand, at a minimum, a default by the two participant families to which it has the largest exposures in extreme but plausible market conditions. Moreover, in applying the Stress Testing Framework to Index Swaptions, the proposed rule change would require that ICC take Index Swaptions into consideration when conducting the stress testing that ICC uses to establish if its available financial resources are sufficient to cover hypothetical losses associated with the two greatest Clearing Participant Affiliate Group uncollateralized stress losses in extreme but plausible scenarios. Therefore, for

---

<sup>20</sup> 17 CFR 240.17Ad-22(b)(2).

<sup>21</sup> 17 CFR 240.17Ad-22(b)(3).

these reasons, the Commission finds that the proposed rule change is consistent with Rule 17Ad-22(b)(3).<sup>22</sup>

D. Consistency with Rule 17Ad-22(d)(8)

Rule 17Ad-22(d)(8) requires that ICC establish, implement, maintain and enforce written policies and procedures reasonably designed to have governance arrangements that are clear and transparent to fulfill the public interest requirements in Section 17A of the Act and to promote the effectiveness of ICC's risk management procedures.<sup>23</sup> As discussed above, in applying the Risk Parameter Setting and Review Policy to Index Swaptions, the proposed rule change would require that ICC's Risk Management Department review the parameters and assumptions associated with Index Swaptions at least monthly and present any proposed updates to the Risk Working Group. The Commission believes this should establish a clear and transparent governance arrangement with respect to reviewing and update those parameter and assumptions. Moreover, as discussed above, the proposed rule change would revise the Back-Testing Framework to require that the ICC Risk Management Department review results and statistical assumptions related to Index Swaptions and specify actions to remediate poor results. The Commission believes this should clearly assign responsibility to the ICC Risk Management Department for reviewing and remediating poor results. Therefore, for these reasons, the Commission finds that the proposed rule change is consistent with Rule 17Ad-22(d)(8).<sup>24</sup>

---

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

<sup>23</sup> 17 CFR 240.17Ad-22(d)(8).

<sup>24</sup> 17 CFR 240.17Ad-22(d)(8).

IV. Conclusion

On the basis of the foregoing, the Commission finds that the proposed rule change is consistent with the requirements of the Act, and in particular, with the requirements of Section 17A(b)(3)(F) of the Act<sup>25</sup> and Rules 17Ad-22(b)(2), (b)(3), and (d)(8) thereunder.<sup>26</sup>

IT IS THEREFORE ORDERED pursuant to Section 19(b)(2) of the Act<sup>27</sup> that the proposed rule change (SR-ICC-2020-002), be, and hereby is, approved.<sup>28</sup>

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>29</sup>

J. Matthew DeLesDernier  
Assistant Secretary

---

<sup>25</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>26</sup> 17 CFR 240.17Ad-22(b)(2), (b)(3), (d)(8).

<sup>27</sup> 15 U.S.C. 78s(b)(2).

<sup>28</sup> In approving the proposed rule change, the Commission considered the proposal's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

<sup>29</sup> 17 CFR 200.30-3(a)(12).