Maria Alarcon
Staff Attorney

January 14, 2020

Re: ICE Clear Credit LLC Advance Notice of Proposed Rule Change Pursuant to Commission Regulation 40.10

VIA ELECTRONIC PORTAL
Mr. Christopher Kirkpatrick
Secretary
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW
Washington, D.C. 20581

Dear Mr. Kirkpatrick:

ICE Clear Credit LLC ("ICC"), a registered derivatives clearing organization ("DCO") under the Commodity Exchange Act, as amended (the "Act"), that has been designated by the Financial Stability Oversight Council as systemically important under Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, hereby submits to the Commodity Futures Trading Commission (the "Commission"), pursuant to Commission Regulation 40.10 as an advance notice of a proposed rule change, the amendments to its Risk Management Model Description ("RMMD"), Stress Testing Framework ("STF"), Liquidity Risk Management Framework ("LRMF"), Back-Testing Framework ("BTF") and Risk Parameter Setting and Review Policy ("RPSRP") (together, the "Risk Policies") in connection with the clearing of credit default index swaptions.[1]

ICC proposes amendments to its Risk Policies in connection with its proposed launch of the clearing of credit default index swaptions ("Index Swaptions").[2] This submission includes a description of the changes to the RMMD, STF, LRMF, BTF and RPSRP. Certification of the changes pursuant to Section 5c(c)(1) of the Act and Commission Regulation 40.10 is also provided below.

The purpose of the proposed changes is to provide for the clearing of Index Swaptions. ICC has previously filed with the Commission related changes to its Rules, End-of-Day Price Discovery Policies and Procedures and Risk Management Framework related to the clearing of Index Swaptions (the "Swaption Rule Filing").[3] As set out in the Swaption Rule Filing, ICC intends 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 does not intend to commence clearing of Index Swaptions until ICC is permitted under Commission regulation to implement the changes described in all such policies and procedures. As such, ICC proposes to implement the changes to the RMMD, STF, LRMF, BTF and RPSRP only after ICC is permitted under Commission regulation to implement the changes described in all such policies and procedures and ICC completes its governance process surrounding the Index Swaptions product expansion.

As discussed in the Swaption Rule Filing, 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

1 Capitalized terms used but not defined herein have the meanings specified in the Clearing Rules (the "Rules").

2 Index Swaptions are also referred to herein and in the Risk Policies as "index options" or "index CDS options", or in similar terms.

3 Submission Number 1907-1516-4754-53, dated July 15, 2019.

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 which would be automatically cleared by ICC upon exercise of the Index Swaption by the Swaption Buyer in accordance with its terms.

I. Risk Management Model Description

The amendments to the RMMD further implement certain changes made to the Risk Management Framework, as described in the Swaption Rule Filing, and would include in particular enhancements to the initial margin ("IM") and guaranty fund ("GF") methodologies to address Index Swaptions. The IM and GF approach for Index Swaptions would be an extension of the existing index and single name ("SN") methodologies for IM and GF.

A. Initial Margin Methodology

The description of the IM methodology would be amended to add a description of Index Swaptions and to define an index option instrument as a specific combination of underlying index, expiration date, strike price, optionality type, exercise style, denomination currency, and transaction type. The index options referencing an index would be treated as part of the underlying index risk sub-factor ("RSF").

Several aspects of the IM methodology would be amended to take into account Index Swaptions.

Jump-to-Default Requirement

For the jump-to-default requirement ("JTDR") of the loss-given default ("LGD") risk analysis, the amendments would introduce the concept of a delta equivalent notional amount ("DENA") for each Index Swaption. The DENA for each Index Swaption would be added to the aggregate outright position in index CDS for purposes of index decomposition and application of all of the components of the JTDR (including the idiosyncratic, general wrong way risk and contagion components).

Liquidity Charge

Pursuant to the amendments, the index level liquidity charge ("LC") that ICC calculates as part of the margin methodology would contain an Index Swaption LC component added to the LC component for the outright index CDS positions. A new subsection would be added to set out the formulas for calculation of the LC of an Index Swaption position related to a particular underlying index, taking into account, among other factors, the direction of the underlying position (bought or sold protection), other option characteristics, bid-offer width scaling factors and the LC for the underlying CDS position. Relevant formulas would establish the LC for a set of options related to a common underlying index RSF and the total options LC for a given index risk factor ("RF"). For purposes of this determination, all option positions would be categorized as either option-derived bought protection positions, or option-derived sold protection positions. The instrument LCs for all option instruments which share the same effective underlying directionality would be added together, and the worst sum would establish the RSF-specific options LCs. The portfolio level LC calculation would be modified to incorporate the impact of index option risk factor LC values as well as outright index and SN positions. The model would not provide portfolio benefits for reduction of LC between outright underlying positions and corresponding Index Swaptions.

Concentration Charge

The calculation of concentration charges would also be amended to address the additional concentration risk characteristics from Index Swaptions. Index Swaption position sizes for purposes of this calculation would be based on their option-derived effective notional amount ("ENA") and their 5 year equivalent analogs, based on the DENA. The amendments would set out formulas for determining RSF-specific net DENA at a specific maturity/tenor for a particular CDS instrument, the RSF-specific net DENA across all

tenors, the 5 year equivalent notional amount of DENA and the 5 year equivalent analogs of the aggregate DENAs. The related maximum loss conditions and LGD calculation corresponding to each series would also be modified to incorporate DENAs in the context of index option positions, among other clarifications.

The overall RSF and RF concentration charge analysis would also be amended to take into account Index Swaption positions combined with outright index CDS positions, based on these ENA determinations and the stress loss associated with the option positions of a particular underlying index series, the total P/L responses of all option positions to defined boundary underlying index price scenarios and the cumulative losses under defined boundary underlying index price scenarios. As with LCs, the amendments would not provide portfolio offsets between underlying index CDS and Index Swaptions for purposes of concentration charges.

Interest Rate Sensitivity Requirement

The calculation of the interest rate sensitivity risk requirement would be amended to account for the risk associated with changes in the default-free discount interest rate term structure used to price Index Swaption instruments. The existing approach of considering parallel shifts of the discount term structure for index CDS would be extended to be used to reprice Index Swaptions as well, with an appropriate adjustment for Index Swaptions to account for price changes rather than upfront fee changes. Under this approach, portfolio offsets between underlying index CDS and corresponding Index Swaptions would be considered.

Basis Risk

As described in the Swaption Rule Filing, the amendments would provide that Index Swaptions would not be eligible for index-SN decomposition benefits in terms of long-short offsets, and therefore would not be subject to basis risk requirements based on decomposed index positions.

Spread Response

The amendments would modify the integrated spread response component of the margin model to incorporate an options-implied credit spread distribution. Under this approach, relevant distribution parameters for Index Swaptions would be implied from option prices established in the end-of-day pricing process. 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 amendments also address 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.

Corresponding amendments would also be made to the spread recovery-rate bivariate calculation to take into account the implied distribution of option pricing for Index Swaptions of the relevant maturity. With respect to instrument P/L estimations, an additional formula would be set out to demonstrate the computation of the option instrument P/L vector elements. With respect to RF P/L estimations, ICC proposes edits to a formula that sets out the computation of RF R/L vector elements and to note an alternative option position P/L computation.

Amendments would also be made with respect to anti-procyclicality measures. The current RMMD examines instrument price changes observed during the Lehman Brothers ("LB") 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 amendments would require consideration of the next six consecutive trading days instead of five. The same change would also be made to the opposite Lehman Brothers ("OLB") scenario.

The amendments would address the impact of the price change scenarios on Index Swaption prices. This would be estimated by repricing the option instruments under the corresponding underlying stress scenarios. In addition, under the considered underlying stress scenario, each option price is computed at a stress implied mean absolute deviation ("MAD") level incorporating a sudden implied MAD ("implied volatility") level shift. The amendments would introduce new formulas to compute the P/L of the LB and OLB scenarios in the context of options, which would reflect the sum of the differences between the option prices computed under the stress scenarios and the current levels for each instrument in the considered portfolio.

B. Guaranty Fund Methodology

With respect to the calculation of the GF, the stress spread response component would be revised to add that the index RF level GF stress spread response for a given spread regime would be computed by combining index CDS and index option instrument P/Ls over the three term structure scenarios and determining the worst combined P/L for contracting and widening regimes. Additional language would be included relating to the computation of option instrument P/Ls depending on the remaining time to expiry for option instruments. Certain other clarifications would be made as to the use of spot/forward spreads in the calculations.

Certain other typographical corrections and similar clarifications, renumbering and updates to cross-references would be made throughout the RMMD.

II. Liquidity Risk Management Framework

The amendments would add references to CDS index option instruments eligible for clearing throughout the LRMF, including for purposes of determination of the margin period of risk ("MPOR"). For the liquidity stress testing analysis, the amendments would augment the historically observed extreme but plausible CDS market scenarios with extreme but plausible stress test options-implied MAD scenarios for CDS index options. These scenarios would be created by pricing the option instruments, by means of the implied credit spread distribution discussed above in connection with the RMMD, at the corresponding underlying stress levels and stress options-implied MAD levels. The amendments would also add that all classifications of scenarios would include assumptions with regards to CDS instrument prices/spreads, co-movements among instrument prices/spreads, the dependence structure of instrument behavior, CDS index option implied distribution parameters, the magnitude of provided portfolio benefits, and explicit assumptions about the occurrence of credit events. The historically observed extreme but plausible market scenarios would specifically incorporate the stress options-implied MAD parameters for widening and tightening scenarios.

With respect to hypothetical (forward looking) liquidity stress scenarios, in the LGD scenario, the amendments would provide that the losses attributable to the considered credit events would reflect CDS instrument positions and CDS index option positions in terms of their DENA underlying positions.

In order to determine the hypothetical profit or loss for each clearing participant representing the largest cumulative loss over the relevant risk horizon, the amendments would clarify that the aggregate amount would be comprised of the price changes corresponding to outright CDS instruments and CDS index options associated with the hypothetical scenarios.

III. Risk Parameter Setting and Review Policy

The proposed amendments to the RPSRP would add references to the CDS index option throughout. They would provide that the Statistical Analysis of Input Data ("SAID") system used to review risk management model assumptions would maintain CDS index option prices and parameters for purposes of risk management. New sections would be added to describe LC, concentration charge, implied distribution and option pricing parameters (including distribution shape and MAD parameters) for Index Swaptions, consistent with the changes to the RMMD discussed above. The revisions would also address the process for periodic analysis and review of parameters and proposed parameter updates by

ICC risk personnel, in connection with the Trading Advisory Group and Risk Working Group. The amendments also provide procedures for ongoing sensitivity analysis of MAD estimates for Index Swaptions, for the use of alternative assumptions and methods 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, and for comparison of implied factors to other relevant metrics.

The amendments would make certain clarifying amendments and similar corrections.

IV. Back-Testing Framework

ICC proposes changes relating to multi-horizon back-testing and univariate back-testing. The proposed amendments would add special CDS strategy portfolio definitions used for back-testing that refer specifically to Index Swaptions. The amendments would also provide that CDS index option instruments are subject to periodic univariate back-testing analysis. For this purpose, the unrealized worst P/Ls over the appropriate time period, projected risk measures and exceedances would be computed and reported as an average over all strikes for each time-to-expiry strip.

With respect to remediating back-testing results, the amendments would add that if poor back-testing results were found to be directly related to CDS index options, an analysis would be carried out on the CDS index option implied distribution assumptions, estimation techniques and estimated parameters. The ICC risk management department ("ICC Risk") would also review the results from the execution within the SAID engine and the statistical assumptions related to options. If the back-testing results based on daily parameter estimates did not exhibit poor performance, ICC Risk 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, ICC Risk could recalibrate and update the implied MAD scaling factors.

V. Stress Testing Framework

Under the amended STF, for each of the predefined stress scenarios categories, CDS index option price scenarios would be created by pricing the option instruments, by means of the calibrated implied distribution, at the corresponding underlying stress levels and stress options-implied MAD levels.

Specifically, the historically observed extreme but plausible market scenarios set out in the STF would be augmented by the following scenarios for CDS index option instruments: (i) the stress options-implied MAD widening scenario (which would be designed to produce a significant extreme but plausible increase in the options-implied MAD); and (ii) the stress options-implied MAD tightening scenario (which would be designed to produce a significant extreme but plausible decrease in the options-implied MAD). With respect to scenarios intended to replicate the observed instrument price changes during the LB default, in the context of CDS index options, these scenarios would incorporate the stress options-implied MAD parameters for widening and tightening scenarios.

With respect to hypothetically constructed (forward looking) extreme but plausible market scenarios, the losses attributable to the considered credit events would reflect CDS instrument positions and CDS index option positions in terms of their DENA underlying positions.

With respect to the extreme model response test, the stress options-implied MAD scenarios that complement the extreme model response test scenarios would be derived from the stress scaling factors for the options-implied MADs by an increase of the magnitude of the stress options-implied MAD widening scaling factor and an increase of the magnitude of the stress options-implied MAD tightening scaling factor.

Pursuant to the amendments, scenarios designed to reproduce significant discordant market outcomes would be augmented with respect to CDS index options with stress options-implied MAD scenarios.

With respect to general wrong way risk and contagion stress tests, the LGD attributable to the considered credit events would incorporate CDS index options positions in terms of their DENA underlying positions. The amendments would also update consideration of the most severe LGD used in the GF reverse stress testing adequacy analysis. The risk factor group ranking by severity of LGD would take into account CDS index option exposures based on the DENA of each option position.

Other conforming changes to incorporate references to Index Swaptions would be made throughout the document.

Core Principle Review:

ICC reviewed the DCO core principles ("Core Principles") as set forth in the Act. During this review, ICC identified the following Core Principles as being impacted:

Financial Resources: The revisions are consistent with the financial resources requirements of Core Principle B and the financial resource requirements set forth in Commission Regulation 39.33. The amendments provide for clearing of an additional type of contract, Index Swaptions. The amendments to the RMMD further implement certain changes made to the Risk Management Framework, as described in the Swaption Rule Filing. As discussed above, ICC is modifying the RMMD, including enhancements to the IM and GF methodologies to address Index Swaptions, and related policies, including enhancements to provide for stress testing, back testing, risk parameter setting and review, and liquidity stress testing in connection with Index Swaptions. The IM and GF approach for Index Swaptions would be an extension of the existing index and SN methodologies for IM and GF. With these modifications, ICC believes that its IM and GF resources will be sufficient to meet ICC's financial obligations to Participants with respect to cleared Index Swaptions as well as other cleared Contracts. As such, ICC will continue to maintain sufficient financial resources to withstand, at minimum, the default of the two Clearing Participant Affiliate Groups to which it has the largest exposure in extreme but plausible market conditions, consistent with the requirements of Commission Regulation 39.33.

Risk Management: The amendments are consistent with the risk management requirements of Core Principle D and the risk management requirements set forth in Commission Regulations 39.13 and 39.36. The amendments would provide for enhanced risk management measures in relation to clearing services for an additional type of contract, Index Swaptions, consistent with the changes to the Risk Management Framework set out in the Swaption Rule Filing. The amendments revise the RMMD to provide for the calculation of IM and GF requirements in respect of portfolios that contain Index Swaptions, taking into account the particular characteristics and risks of Index Swaptions. In particular, the amendments incorporate Index Swaptions into key components of the IM model, including the jump-to-default and stress responses components, LCs, concentration charges and interest rate sensitivity. The amendments make corresponding changes to the LRMF to provide for liquidity stress testing in connection with Index Swaptions, as well as amendments to the STF and BTF to address Index Swaptions. In ICC's view, these adjustments will expand its overall existing risk model for use with Index Swaptions and thus facilitate its ability to manage the participant default risk with respect to cleared Index Swaptions. Further, as discussed above, ICC is modifying the RMMD, and in particular the IM calculations, to address the credit exposure to participants with respect to Index Swaptions. The RPSRP would also be updated to address the calibration of the option-related parameters to compute IM and GF requirements. These modifications to ICC's IM model are intended to ensure that ICC appropriately limits its credit exposures to participants relating to the new Index Swaptions and accordingly sets appropriate IM levels for these products. The amendments also provide for back-testing and stress-testing of such margin requirements. ICC believes that the amendments, as well as ICC's existing risk management procedures, would ensure that ICC possesses the ability to manage the risks associated with discharging its responsibilities, consistent with the risk management requirements of Core Principle D. ICC's risk management practices will also continue to be performed in accordance with the standards and practices set forth in Commission Regulations 39.13 and 39.36.

Amended Rules:

The proposed changes consist of changes to the RMMD, LRMF, RPSRP, BTF and STF. ICC has respectfully requested confidential treatment for the RMMD, LRMF, RPSRP, BTF and STF, which were submitted concurrently with this submission.

Certifications:

ICC hereby certifies that the changes comply with the Act and the regulations thereunder. The changes were unanimously recommended for approval by the ICC Risk Committee and unanimously approved by the ICC Board of Managers. There were no substantive opposing views to the changes.

ICC further certifies that, concurrent with this filing, a copy of the submission was posted on ICC's website, and may be accessed at: https://www.theice.com/clear-credit/regulation

ICC would be pleased to respond to any questions the Commission or the staff may have regarding this submission. Please direct any questions or requests for information to the attention of the undersigned at (312) 836-6854.

Sincerely,

Maria Alarcon

Maria Alarcon
Staff Attorney

Enclosures

cc: Board of Governors of the Federal Reserve System