



March 26, 2021

Mr. Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW
Washington, DC 20581

Re: Self-Certification Pursuant to Commission Rule 40.6 – Amendments to CDS Clearing Stress Testing Policy, CDS End of Day Price Discovery Policy, CDS Risk Model Description and CDS Risk Policy and adoption of CDS Parameters Review Procedures

Dear Mr. Kirkpatrick:

ICE Clear Europe Limited (“ICE Clear Europe” or the “Clearing House”), a registered derivatives clearing organization under the Commodity Exchange Act, as amended (the “Act”), hereby submits to the Commodity Futures Trading Commission (the “Commission”), pursuant to Commission Rule 40.6 for self-certification, the amendments to its CDS Clearing Stress Testing Policy, CDS End of Day Price Discovery Policy, CDS Risk Model Description and CDS Risk Policy (together, the “Documents”) and its newly adopted CDS Parameters Review Procedures (the “Parameters Procedures”), as discussed herein. The amendments to the Documents and the adoption of the Parameters Procedures are to become effective on the first business day following the tenth business day after submission, or such later date as ICE Clear Europe may determine.

Concise Explanation and Analysis

ICE Clear Europe is amending the Documents and instituting the new Parameters Procedures principally to describe more fully certain existing Clearing House practices, as discussed herein. ICE Clear Europe is also making certain enhancements to CDS stress testing, specifically to incorporate the impact of the COVID-19 pandemic into its stress-testing framework.

CDS End of Day Price Discovery Policy

The amendments to this policy generally clarify the process to determine prices for a particular instrument when fewer than three Clearing Members have open interest in that instrument, in order to provide more reliable pricing in that scenario. The amendments also make minor terminology updates to conform uses of defined terms, correctly reference various ICE Clear Europe personnel and operations and make similar typographical corrections throughout the document and add a new table.

Currently, the CDS End of Day Price Discovery Policy states that if fewer than three CDS Clearing Members have cleared open interest in an instrument, ICE Clear Europe may require all CDS Clearing Members to provide a price submission for that instrument. The amendments supplement this concept to provide more flexibility to ensure enough submissions to enable effective determination of reliable end-of-day prices and thereby facilitate an accurate and stable variation margin process. As amended, the policy states that ICE Clear Europe believes that tradeable quotes submitted by CDS Clearing Members are the preferred source of data and should be used where possible and reliable, meaning where there is more than one CDS Clearing Member with which the quote could be crossed. Where there are not enough CDS Clearing Members to enable tradeable quotes (i.e., quotes at which a member transacts) to be crossed with more than one CDS Clearing Member (i.e., fewer than three CDS Clearing Members with open interest in the relevant instrument), then ICE Clear Europe will switch to rely on indicative quotes and will require these from all CDS Clearing Members. (For this purpose, an indicative quote is a reasonable estimate of the market price, but does not necessarily reflect a price at which the member will transact.) When requesting indicative quotes in this manner, ICE Clear Europe will not require CDS Clearing Members to enter into firm-trades in these instruments. The minimum number of three CDS Clearing Members, below which indicative quotes will be used, will be subject to ongoing review by ICE Clear Europe as to whether this is the appropriate threshold given market circumstances.

A new Table 4 showing an example of an assignment of index risk factors to market proxy groups is being added pursuant to the amendments relating to end-of-day bid-offer widths (“EOD BOWs”) for index instruments. The new table does not reflect a change in practice and is intended for clarity. The table shows the index risk factors for each of the CDX and iTraxx market proxy groups. Various cross-references to tables are being updated.

The governance section is being updated to clarify that material changes to the EOD price discovery methodology, spread-to-price conversion determinants or parameters are subject to review by the TAG and Product Risk Committee, in addition to other governance requirements under ICE Clear Europe’s existing governance framework. This amendment is intended to reflect current practice.

Numerous minor typographical and similar updates are being made throughout the CDS End of Day Price Discovery Policy. With respect to “red” matters in the escalation and notification protocol for appetite metrics, the Board and Executive Risk Committee would be notified immediately instead of as soon as possible. Other minor clean-up changes are also being made to improve readability and clarity and remove outdated cross-references.

CDS Clearing Stress Testing Policy

ICE Clear Europe is adding new stress test scenarios to this policy and to make certain other clarifications and enhancements to the description of the stress-testing methodology in order to capture the large market moves experienced during the COVID-19 pandemic, strengthen the CDS discordant stress test scenarios and better reflect the current governance structure related to stress testing.

Purpose

The discussion of the purpose of Clear House stress testing practices, including as to how they are integrated into ICE Clear Europe's risk procedures and governance structure, is being revised to reflect the Clearing House's current governance framework, and specifically to reference the Model Oversight Committee ("MOC") and to remove an outdated reference to the Board Risk Committee ("BRC").

Methodology

The general methodology section of the policy is being amended to add a discussion of stress testing in the context of wrong way risk. For this purpose, positions in index risk factors and single-name risk factors that exhibit high levels of association with a Clearing Member's portfolio are combined in a sub-portfolio, which is subject to additional stress testing analysis. The amendments to this section do not reflect a change in Clearing House practice but are intended to better document existing practice.

The amendments also revise the governance process where a scenario or portfolio in the standard set of stress scenarios is no longer applicable, or is superseded by new scenarios or portfolios, and the Clearing Risk Department wishes to retire or modify the outdated scenario or portfolio. In that case, the Clearing Risk Department will conduct an analysis to determine whether a change is significant, which would be reviewed by the Risk Oversight Department ("ROD"). The Board, or its delegated committee, will approve the significant decommissioning of scenarios, while the Model Oversight Committee ("MOC") will approve the decommissioning of scenarios (if not significant) or recommend the decommissioning of scenarios to the Board if deemed significant. The amendment is intended largely to formalize current practice, and also reflect the role of the MOC under the Clearing House's Model Risk Governance Framework (the "MRGF"). The existing description of the steps that the Clearing Risk Department will take in such a scenario (involving approval by the relevant risk committee) is being deleted. The amendments also clarify that if the Clearing Risk Department wishes to add new scenarios or portfolios, the MOC must approve of the addition, but the Board's approval is not required. This is a change from the current procedure, under which it is sufficient to simply inform the CDS Risk Committee.

Further, the amendments also state explicitly that in stress testing and sensitivity testing, under the multiple Clearing Member default scenario, conditional uncollateralized loss-give-defaults ("LGDs") resulting from Clearing Member single-name positions will also be explicitly incorporated. This reflects current practice.

Defined Terms

Various defined terms are being updated throughout the document.

Changes to Predefined Scenarios; New COVID-19 Scenarios

The introductory description of the predefined scenarios is being amended to clarify that the scenarios reflect a stress period of risk from 1 to 7 days (referred to in the policy as “N”-day scenarios), taking into account the 5-day margin period of risk used in the existing margin methodology for house accounts and the 7-day margin period of risk used in the existing margin methodology for client accounts. The description of the magnitude of the base “FX Stress Scenario” is being amended to state that it reflects the greatest relevant N-day stress period (instead of five days).

Overall, the changes to the stress testing scenarios, other than the addition of the new Covid-19 scenarios, are intended to more thoroughly describe the stress test scenarios. The changes (including the addition of the Covid-19 scenarios) are not expected to result in any changes in margin levels or other financial impact on the Clearing House or Clearing Members.

Extreme but Plausible Market Scenarios

The amendments update the description of the extreme but plausible market scenarios. The description of the 2008/2009 credit crisis scenario is being updated to state that the widening/tightening credit crisis spread scenarios are based on the greatest observed N-day (instead of five-day) relative spread increases/decreases expressed as percentages. The amendments also clarify that the determination of the exact stress period is defined by the greatest observed spreads change of the Most Actively Traded Instruments (“MATI”) for each relevant sub-portfolio. The stress spread changes, defined for each Index, corporate and sovereign risk factor (“RF”), will be extracted from the market history for the MATI of the considered RF. Amendments also clarify that the other three historically observed stress test scenarios from the 2008/2009 period will be based specifically around the period surrounding Lehman Brothers’ default to capture the large market moves of that period. These amendments are intended to provide a more thorough description of these existing stress testing scenarios.

The description of the Western European credit crisis scenarios are similarly being clarified to state explicitly that the scenarios replicate the stress market moves resulting from the concerns around the debt sustainability of several Eurozone countries. Widening/Tightening Western European Credit Crisis Spread Scenarios will be based on the greatest observed N-day (instead of five-day) relative spread increases/decreases (which will no longer be restricted to the most actively traded instruments). Amendments also clarify that the determination of the exact stress period will be defined by the greatest observed spreads change of the MATI for each sub-portfolio. The other three historically observed stress test scenarios will be based specifically around the second quarter of 2010 to capture the large market moves of that period. The spread shocks will be expressed in percentage for each RF. These amendments are intended to provide a more thorough description of these existing stress testing scenarios.

The description of the Lehman Brothers Default Price Change Scenario is being expanded. The amendments state that the scenario magnitudes are defined for each RF

according to its sector classification and time to maturity of the considered instrument. The corresponding stress test Opposite LB Default Price Change Scenarios will be derived from the Lehman Brothers scenarios by means of multiplying the scenario result by a negative factor to reflect the reduced magnitudes of the observed price increases during the considered period. These amendments are intended to provide a more thorough description of these existing stress testing scenarios.

New COVID-19 Based Scenarios

Given that moves in both spreads and prices were, generally, higher than other observed extreme but plausible stress test scenarios during the COVID-19 pandemic, ICE Clear Europe is adding the following additional COVID-19 pandemic fear scenarios based on stress market moves experienced between February and April 2020:

- The COVID-19 Widening/Tightening Spread Scenarios, which are based on the greatest observed N-day relative spread increases/decreases during the period. The determination of the exact stress period is defined by the greatest observed N-day spread changes of the MATI for each sub-portfolio; and
- The COVID-19 Price Decrease Scenario is defined in price space to maintain the stress severity during periods of low spread levels and high prices, when the IM requirements are expected to be lower. The scenario is based on the greatest observed N-day relative price decreases during the aforementioned period. The determination of the exact stress period is defined by the greatest observed N-day spread changes of the MATI for each sub-portfolio. A corresponding stress test COVID-19 Price Increase Scenario will be derived from the price decrease scenario by applying factors for Indices and SNs to reflect the reduced magnitudes of the observed price increases during the considered period.

Discordant Scenarios

The scope of discordant spread scenarios (for corporates and sovereigns) is being clarified. Specifically, the description of the corporate discordance spread scenarios reflect that such scenarios are based specifically on discordant moves along the major European and North American 5Y on-the-run (OTR) indices. The amendments also state that the corporate SNs and indices discordant spread scenarios, which reflect realizations when certain indices or sub-indices for the EU region and certain U.S. OTR indices exhibited the greatest combined discordant change, is being created and applied to SNs and Indices. The amendments further update references to indices used in stress scenarios and state that other stress scenarios are based on discordant spread realizations across European Indices. The amendments also note that other stress scenarios reflect discordant spreads realizations among geographical regions. These amendments are intended to provide a more thorough description of existing stress testing scenarios.

Hypothetical Scenarios

With respect to hypothetical scenarios, greater detail is being added to clarify that the curve inverting spread scenario is based on the largest widening shock among the

2008/2009 Credit Crisis Widening and the Western European Credit Crisis Widening for each RF. Similarly, the curve steepening spread scenario is based on the largest tightening shock among the 2008/2009 Credit Crisis Tightening and Western European Credit Crisis Tightening scenarios.

New sectors and countries discordant scenarios are also being added. These scenarios are designed to reproduce discordant moves across sectors and entities of different countries, noting that the large price moves in the oil benchmark products (especially WTI negative prices) in the first half of 2020 created asymmetric shocks to the energy and financials sectors compared to other sectors, which are reflected in the Energy vs Other Sectors Discordant scenario. The five-year spread shocks are estimated at sector level, and the derivation of the shocks for the other tenors are based on the tenor-specific inverting and steepening factors. The sector-specific shocks are then applied to all RFs within the sector. The opposite stress scenario is also being considered for completeness. The spread shocks estimated for the clearable Western European Sovereigns are being applied to the European corporate SNs for each country. The opposite stress scenario will also be considered for completeness.

Another hypothetical scenario, the forward-looking credit events scenarios, is being updated to clarify that the Clearing Member reference entity that will be considered will be different from the Clearing Member whose portfolio is subject to the stress test. They also add that the reference entity is assumed to enter in a state of default and thus create Loss Given Default (“LGD”) and that a reference entity is selected that creates the largest LGD exposure, rather than the greatest one-year EOD spread level.

Extreme Market Scenarios

The amendments clarify that extreme steepening and extreme inverting scenarios are being created from crises steepening and crises inverting scenarios by doubling the shocks for inverting scenarios and applying a factor to steepening scenarios. The amendments also incorporate the new COVID-19 historical scenarios into the determination of extreme scenarios, similar to the calculation of extreme scenarios based on the LB default scenario.

With respect to the guaranty fund (“GF”) scenarios, greater specificity is being provided to clarify that the stress test scenarios are being designed to account for the occurrence of credit events for two Clearing Member risk factor groups (“RFGs”) and three non-Clearing Member RFGs. The amendments also clarify that the GF scenario considers an even more extreme case in which five RFGs undergo credit events (changing a reference from single names to the more accurate RFG). The chart setting out the quantile ratios for the student t distributions with different shape parameters is being removed as unnecessary.

The GF adequacy analysis is being amended to state that as the number of defaults of reference entities is one of the major risks in the CDS clearing service, the Clearing Risk Department considers complementary extreme scenarios where a combination of up to five RFGs for up to five Clearing Members will be assumed to default before simulating spreads widening and tightening on the non-defaulting entities in order to fully deplete the GF. The amendments explain that the scenario aims at providing estimates of the level of protection achieved through initial margin (“IM”) and GF in

relation to multiple defaults. This amendment is intended to clarify the stress-testing description, but does not reflect a change in current stress testing practice.

Portfolio Selection

The description of the process for determination of sample portfolios for stress testing is being updated to reflect that ICE Clear Europe will derive the portfolio from the currently cleared portfolios by considering only positions in index RFs and sectors that exhibit a high degree of association with the considered Clearing Member, in particular indices, sovereigns and financials RFs (rather than considering exactly the opposite positions from the currently cleared portfolio). The constructed sub-portfolios will be subject to the stress test analysis with the standard set of stress test scenarios. The aim of the stress analysis with the sample portfolios is to provide estimates to the potential exposure of Clearing Members to RFs generating general wrong way risk (“WWR”). The current reference to special strategy sample portfolios is being deleted, and a new provision addresses application of stress testing scenarios to expected future portfolios upon the launch of new services and RFs. The stress test analysis will be presented and reviewed by the CDS Product Risk Committee prior to launch of the new RFs.

Interpretation and Review of Stress-Testing Results

The interpretation and review of the stress-testing results section is being amended to provide that enhancements to stress scenarios will be discussed and approved based on the governance outlined in the MRGF. The amendments also clarify that the two greatest affiliate groups’ (“Cover-2”) uncollateralized stress loss associated with scenarios characterized as extreme but plausible market scenarios should be covered by funded default resources (excluding potential assessments). If Cover-2 protection under these scenarios is not achieved, additional funds may be required to cover the shortfall and enhancements to the current risk methodology will be considered. The amendments further provide that the Board and its delegated committees (instead of the CDS Risk Committee and Board Risk Committee) will be provided with information as to the stress test results as necessary or appropriate to perform their duties. The amendments are intended to allow the Board the flexibility to determine the appropriate committees for review of stress testing.

Certain outdated statements are being removed, including matters relating to governance that are addressed in the MRGF as well as outdated references to certain examples or specific committees. As discussed in the methodology section above, any related deficiency analysis and review will be undertaken by the MOC instead of the Executive Risk Committee, in accordance with the procedures of the MRGF. The stress testing report will be presented to the CDS Product Risk Committee instead of the CDS Risk Committee during scheduled meetings (instead of scheduled monthly meetings).

Policy Governance and Reporting

The policy governance and reporting section is being amended to remove the requirement that the policy be reviewed annually by the CDS Risk Committee and only require review by the Board Risk Committee. Material changes to the policy are being discussed by the MOC (instead of the ERC) and approved by the Board on the advice of the CDS Product Risk Committee and the Board Risk Committee prior to

implementation. These amendments are intended to be more consistent with other Clearing House governance processes and formalize existing arrangements to ensure that appropriate bodies are engaged in policy governance.

Appendix

The FX stress test scenario amendments reflect the greatest N-day relative depreciation (instead of five-day) and remove the specific dates. This is intended to be a conforming change consistent with the other amendments to use an N-day period described above.

CDS Risk Policy

The amendments to this policy describe more fully the existing use of the Clearing House's Monte Carlo ("MC") simulation approach in the context of establishing initial margin and GF requirements. The amendments also generally clarify the use and source of intraday prices and make other drafting improvements and clarifications, including through revising certain descriptions and providing certain defined terms. The amendments simplify certain cross references to the CDS Risk Model Description throughout the policy by removing unnecessary section references (to facilitate keeping the CDS Risk Policy up to date). In general, the amendments are intended to provide a clearer explanation of the Clearing House's methodology for IM and GF requirements, and are not intended to materially change the methodology or to change the levels of IM and GF requirements.

With respect to IM, the amendments clarify the description of the IM methodology by stating that the risk protection measure is based on using a combined approach featuring a stress-based spread response Value-at-Risk ("VaR") measure and a Monte Carlo ("MC") simulation spread response VaR measure. They also add that model performance is being monitored through stress testing and sensitivity analyses. The amendments are not intended to more clearly reflect existing practices, and do not change the IM methodology.

With respect to the spread response requirements description, the amendments provide greater clarity that the spread response risk requirement that captures credit spread fluctuations is a stress-based spread response that computes Profit/Loss ("P/L") distributions from a set of simulated hypothetical (forward looking) credit spreads scenarios.

The description of the stress-based spread response scenarios is being modified by rewording the introduction to improve readability and to clarify the applicable benchmark tenors estimated for all the Risk Sub-factors, replacing certain outdated references to tenors. The amendments are intended to reflect and more clearly describe current practices.

A new section is being added to describe in more detail the Monte Carlo simulation approach currently used by the Clearing House. The amendments provide that in this approach, ICE Clear Europe generates spread scenarios by means of student-t copulas to connect the univariate distributions that describe spread fluctuations. The student-t copulas reflect historical estimates of Kendall τ correlation coefficients to simulate spread log-returns.

The simulated copula scenarios are used to arrive at hypothetical spread levels by means of estimated univariate spread log-return distributions. Each instrument is being repriced at the simulated spread levels to generate a scenario instrument P/L based on post-index-decomposition positions. For each scenario, instrument P/Ls will be aggregated according to pre-defined RFs and sub-portfolio position sets in order to obtain RF and sub-portfolio P/Ls. These distributions will be used to estimate the RF and sub-portfolio 99.5% VaR measures at a chosen risk horizon. The portfolio level integrated Spread Response will be estimated as a weighted sum of RF and sub-portfolio 99.5% VaR measures.

The description of the anti-procyclicality considerations is being updated to provide that the stress price changes will be derived from the price-based extreme but plausible stress test scenarios under the revised CDS Stress Testing Policy, as described above, instead of only from the market behavior during and after the Lehman Brothers default period.

Throughout the policy, references to the risk department are also being updated to the Clearing Risk Department.

The amendments also provide that the Clearing Risk Department may recommend margin methodology changes based on the governance procedures outlined in the MRGF, consistent with the requirements of that framework. The amendments also note that in the event that ICE Clear Europe is accepting sizable positions through the weekly back-loading process in the context of margin calls, it will pre-collect IM and mark-to-market changes, instead of just IM.

With respect to mark-to-market margin (“MTMM”), the description regarding the determination of cash owing, the payment of MTMM, the timing of margin calculations and the making of MTMM calls are being removed as unnecessary operational detail. These matters are also generally covered in the CDS Risk Policy and Finance Procedures. Similarly, the discussion of the requirements and rights of a Clearing Member upon a change in MTMM balance (i.e. to pay or be credited cash) is being deleted as unnecessary detail.

With respect to intra-day monitoring, the amendments provide that ICE Clear Europe ensure the quality of the intraday prices by monitoring and comparing the quotes received with the intraday prices of the transactions cleared at ICE CDS clearing houses. ICE Clear Europe may also compare intraday prices with those of another third-party provider. The comparison process will be carried out before issuing intraday margin calls. The description of the intraday risk limit calculation is being updated such that it will be based on 40% of the total IM requirements, with a minimum amount corresponding to the minimum GF contribution and capped at a monetary amount reviewed in conjunction with the ICE Clear Europe senior management and the CDS Product Risk Committee. The precise monetary amount is being removed from the policy to give the Clearing House flexibility if it determined it was appropriate to review and reconsider this amount in the future in conjunction with senior management and the BRC. There is currently no plan to change the existing EUR 100 million cap in practice. The procedure for intra-day margin calls is being further clarified by removing a statement that where there has been a 50% erosion of the Intraday Risk Limit, the

Risk Department will investigate the matter. In ICE Clear Europe’s view, a separate step at the 50% erosion level is unnecessary, as ICE Clear Europe will not take any particular action at that level. Once the erosion exceeds 50%, the Clearing Risk Department is required to inform the relevant CDS Clearing Member that it may be subject to an intraday margin call (and in so doing the Clearing Risk Department will make any necessary investigations of the matter).

The statement that the Risk Management Department will notify the ICE Clear Europe Treasury Department of the “special” margin call is being removed as an operational detail not necessary for the policy.

With respect to the GF, the amendments update the drafting of certain language (including the reference to the “Cover 2” requirement) to remove certain unnecessary detail. With respect to related anti-procyclicality considerations, the amendments refer to the extreme but plausible price-based stress test scenarios described in the revised CDS Clearing Stress Testing Policy, as discussed above. Amendments also provide that the GF allocation process is performed by the Clearing Risk Department on a weekly basis rather than every Thursday and based on the previous business day’s close of business positions rather than Wednesday’s close of business positions. The amendments also clarify that the requirement that a portion of the GF be in USD is intended to accommodate all USD-denominated CDS contracts, not merely sovereign CDS contracts. The current numerical example of GF calls/collection is being removed as unnecessary.

With respect to back-testing, the amendments provide if the model calibration consistently demonstrates exceptions outside of the coverage level, the Clearing Risk Department will review the models and recommend revisions following the governance procedures outlined in the MRGF.

Pursuant to the amendments, the stress-testing section adds that the historical data will account for COVID-19 outbreak fear, consistent with the changes to the CDS Stress Testing Policy discussed above.

The amendments also update certain terms throughout the document..

CDS Risk Model Description

This document was amended in May 2019 (the “2019 Amendments”) and additional amendments are currently being made (the “Current Amendments”). As discussed below, the Current Amendments will:

- clarify the treatment of volatility estimates for the Recovery Rate Sensitivity Requirement (“RRSR”), risk factor calibration and the raw data cleansing process; and
- add detail regarding the use of ICE Clear Europe cleared volume in the Concentration Charge threshold review.

As discussed below, the 2019 Amendments:

- enhanced the calculation of the WWR threshold;

- clarified the parameter estimation of the recovery rate sensitivity requirement;
- clarified the discussion around model testing;
- added a section to explicitly refer to the assumption around the use of the same time series for IM and GF distributions in the CDS Risk Model; and
- provided that the interest rate sensitivity requirement of the model reflects a time horizon of five days for house accounts and seven days for client accounts.

With the exception of the changes to the calculation of the WWR threshold, the amendments are in the nature of clarification and improving descriptions of the Clearing House's existing methodology, and do not constitute a change in the methodology. The enhancement of the calculation of the WWR threshold, as discussed below, while a change from prior practice, is expected to have an immaterial effect on margin levels.

The 2019 Amendments

The following is a description in further detail of the 2019 Amendments to the CDS Risk Model.

Model Design and Development

The amendments update the description of the interest rate sensitivity requirement component of the IM model to add that the changes captured in the discount default-free terms structure used for pricing the cleared instruments are over a certain time horizon (five days for house accounts and seven days for client accounts). This amendment documents existing practice.

Initial Margin Methodology

With respect to IM, the amendments update the loss given default risk analysis to specify initial values of certain parameters and to note that certain parameters are reviewed by the Risk Working Group on at least a monthly basis.

With respect to the haircut applied as part of the multi-currency portfolio treatment methodology, the amendments clarify that in order to provide consistency and uniformity in the parameters applied to the CDS risk model, ICE Clear Europe adopt the same (more conservative) haircut in line with ICE Clear Credit LLC. This amendment does not change existing practice, and is intended to strengthen the IM methodology by documenting existing practice.

Similarly, with respect to the foreign exchange haircut applied to periodic adjustments to the GF, the amendments also clarify that in order to provide consistency and uniformity in the parameters applied to the CDS risk model, ICE Clear Europe is adopting the same (more conservative) haircut in line with ICE Clear Credit LLC. This amendment also does not change existing practice, and is intended to strengthen the IM methodology by documenting existing practice.

Monte Carlo Implementation

Amendments are being made to clarify and simplify the overall description of the Monte Carlo implementation. The amendments are not intended to reflect a change from current practice, but rather provide a clearer description of the existing implementation. Specifically, ICE Clear Europe believes that the revised description provides a more practical, and less theoretical, explanation of the Monte Carlo implementation that will facilitate replication and validation of the implementation by third parties.

Among other clarifications, the revised description states explicitly that the final spread response requirement will be the most conservative requirement in the specified stress-based spread response equation, which is consistent with current practice. Certain subsections of the Monte Carlo description, including those relating to the discussion of matrix decomposition, are being deleted as unnecessary in light of the description of the implemented model. The amendments update the copula simulation description to provide further detail as to the determination and use of the linear correlation matrix and construction of student-t random variables and vectors for the production of relevant scenarios. The existing description of the conditional block matrix simulation framework and full matrix simulation framework is being revised to provide a more simplified description of the two-step conditional simulation approach that is currently used by the Clearing House. A section describing copula parameter estimation for purposes of multivariate distribution is being added while the description of simulation for standardized spread log returns is being removed as unnecessary. The model parameters section is being removed (with relevant parameters being addressed in the Parameters Procedures as discussed below). Overall, these changes are intended to more clearly reflect the current model, and do not represent a change in methodology.

The Risk Measures section was amended to reflect existing practice that each cleared portfolio will be initially split into sub-portfolios based on common features in order to obtain risk estimates reflective of the market behavior and default management practices. The definitions of the sub-portfolios and their respective risk horizons will be periodically reviewed by the ICE Clear Europe Risk Management department and updated upon consultation with the Product Risk Committee.

More detail was provided with respect to the use of simulated P/L scenarios, combined with the post-index-decomposition positions related to a given RF, to generate a currency-specific RF P/L vector. Each risk factor will be attributed to only one sub-portfolio and all instruments related to a given risk factor will be denominated in the same currency. The multi-currency risk aggregation approach will be applied to risk factors within the European Corporate and U.S. Corporate sub-portfolios denominated in EUR and USD currencies, respectively. A diagram is being added to demonstrate a bivariate simulation aspect of the risk aggregation approach. This change was intended to document existing practices.

The Monte Carlo Engine Setups subsection and Conclusion subsection to the Monte Carlo Implementation section were deleted for improved clarity as content relevant to the implementation is addressed more clearly in other sections, and the prior description of the system or engine does not, in ICE Clear Europe's view, add useful information beyond the other aspects model description.

Overall, these amendments generally do not represent a change in current operation of the MC component of the risk model.

Time Series for IM and GF Distribution

A section explaining the existing use of the same time series for IM and GF distribution was added. The approach is designed to be conservative and ensure that the portfolio loss at 99.75% quantile (used for GF determination) will be always greater than 99.5% quantile loss (used for IM determination). The approach also avoids unnecessary operational complexity. The validity of the assumption is monitored through the stress test impact analysis. The amendments were intended to document existing practices and therefore were not expected to have a material impact.

Current Amendments

The following is a description in further detail of the Current Amendments to the CDS Risk Model.

Initial Margin Methodology

The amendments clarify the source of certain market risk transfer activity data used in the concentration charge threshold parameterization. The amendments also update the loss threshold calculation in the determination of specific WWR and general WWR (to be based on price minus recovery rate as opposed to one minus recovery rate). Although the change makes the WWR calculation more precise, the monetary impact on margin requirements is expected to be immaterial (and near zero). The amendments generally strengthen the precision of the Initial Margin methodology based upon independent validation findings.

The amendments provide additional detail with respect to the volatility floor value used in the IM methodology. The amended description provides that the volatility floor is estimated based on the average overlapping five-day absolute change of recovery rates (RRs) for a set of defaulted names. The defaulted names have a long time series of observed RRs (i.e. more than a year) and comprise a stress period of 2009-2012. The Clearing Risk Department will be able to review the estimated parameters in case of the availability of sufficient long time series of observed RRs. This is consistent with existing practice and intended to strengthen the IM methodology by more clearly documenting the practice.

The amendments also clarify that with respect to the concentration charge threshold, the market risk transfer activity data obtained from the Depository Trust & Clearing Corporation specifically contains both bilateral positions and ICE cleared positions. This is consistent with existing practice and intended to strengthen the IM methodology by more clearly documenting the practice.

Anti-Procyclicality Measures

The amendments modify the approach to anti-procyclicality of spread response requirements to be calibrated based on historically observed extreme but plausible stress test scenarios in price space defined in the revised CDS Stress Testing Policy, as

discussed above, which include various stress scenarios including the Lehman Brothers' default and COVID-19 outbreak. This broadens the current anti-procyclicality approach, which is based specifically on the Lehman Brothers' default scenario. The amendments are intended to enhance the anti-procyclicality approach to address multiple price-based scenarios as the Lehman Brothers' default scenario alone may not be sufficient. In particular, the amendments are intended to incorporate the Covid-19 stress scenario, in light of experience during the pandemic. Amendments also reflect the 20% portfolio gross margin floor required under relevant European regulation.¹

Monte Carlo Implementation

The amendments clarify that in the MC implementation, distributions are based on simulated constant maturity CDS spread scenarios, and that instrument profits or losses are calculated by re-pricing instruments at their coupons as well as their implied recovery rates. This change is intended to document existing practices.

Data

The amendments clarify certain data fallbacks used by the Clearing House when the normal established EOD spread data is not available. Consistent with current practice, the amendments provide that if CDS spreads are not available using the usual data sources, then the ICE Clear Europe Clearing Risk Department will use proxy log-returns of existing clearable risk sub-factors from a similar or correlated industry/sector. In case ICE Clear Europe rolls out risk factors already cleared at ICE Clear Credit, the existing CDS spreads time series will be used directly after reviewing the back-test results. The amendments also clarify that certain CDS spread time series are available by risk sub-factor for the relevant benchmark tenors.

The amendments provide additional detail as to the collection, analysis and back-testing of relevant data for new risk sub-factors. Pursuant to the amendments, if new risk sub-factors are to be rolled out, ICE Clear Europe will collect prices from the Clearing Members on the benchmark tenors as per normal EOD price discovery process before making the contracts clearing eligible. The Clearing Risk department will be responsible for reviewing the fixed maturity time series data on the benchmark tenors until the first day of the price collection.

The back-filling of missing data will be performed in log-return space derived from the available EOD fixed-maturity spread levels. In general, the 5Y tenor time series will always be available. If the original log-returns time series presents incomplete data for less actively traded tenors for only a few days, then interpolation/ extrapolation techniques will be applied to derive the missing data.

Once fixed maturity time series are complete, ICE Clear Europe Clearing Risk Department will perform back-tests on hypothetical trading strategies and stress tests on hypothetical portfolios (*i.e.*, by injecting bilateral positions extracted from DTCC on the sub-risk factor to roll out into cleared portfolios of Clearing Members) in order to further ensure that time series for the new risk sub-factors are appropriate to calibrate

¹ European Market Infrastructure Regulation (EMIR) Article 27.

the risk models. The results of the analyses will be presented to the CDS Product Risk Committee.

The use of fixed maturity time series is being transformed to constant maturity time series (“CMTS”) to eliminate the impact of semi-annual rolls. The amendments provide further detail as to the manner in which CMTS series are determined and used for index and single-name risk factors. These amendments are intended to provide further clarity to the process as described in the Risk Model Description, but not significantly change current Clearing House practice, consistent with the existing Risk Model Description.

The amendments also provide that back-testing results will be available to assess the quality of time series as well as the performance of the calibrated models (instead of just the latter).

Overall, these amendments relating to data are intended to better document existing practices and therefore are not expected to change Clearing House operation.

Testing

The Testing section is being amended to provide that tests will be broadly grouped into the following categories: stress tests; back-tests; sensitivity tests; anti-procyclicality tests; and benchmarking. The amendments are generally intended to reflect, and be consistent with the ICE Clear Europe CDS Back-Testing Policy, CDS Clearing Stress-Testing Policy, CDS Parameters Review Procedures and Pro-cyclicality Framework, and further details of testing are provided in those documents. With respect to benchmarking, as currently described in the Risk Management Model Description, ICE Clear Europe will benchmark the spread response model against the Model Carlo simulation approach. Certain existing details regarding backtesting of the core model components, comparing the calibrated recovery rates used in the jump to default requirement and actual market data, assessing whether the assumed stress scenario adopted to size the GF is fit for purpose, testing the liquidity component of the model, assessing measures to mitigate the procyclicality of the margins and testing margin sensitivity are being removed as that detail is contained in the ICE Clear Europe CDS Back-Testing Policy, CDS Clearing Stress-Testing Policy, CDS Parameters Review Procedures and Pro-cyclicality Framework. The amendments do not represent a substantive change in ICE Clear Europe’s approach to testing but are intended to clarify the Risk Model Description and to enhance it by more clearly stating relevant assumptions.

Other Changes Throughout the Documents

Minor typographical and drafting updates are also made throughout the Documents.

CDS Parameters Review Procedures

ICE Clear Europe is formalizing certain existing practices and procedures for calibrating and reviewing the core parameters and underlying assumptions of its Risk Management (“RM”) model that are not explicitly described in its CDS Risk Model Description and CDS Risk Policy into a new Parameters Procedures document. The

Parameters Procedures thus generally are not expected to change existing Clearing House practice.

Parameters Setting and Calibration

ICE Clear Europe's Parameters Procedures discuss the process of setting and reviewing the model core parameters and their underlying assumptions. The model requirements include Spread Response ("SR") requirements, Jump-To-Default ("JTD") requirements, basis risk requirements, interest rate ("IR") sensitivity requirements, liquidity charge requirements, and concentration charge requirements.

Spread Response

The Parameters Procedures describe the parameters (and related process for reviewing and updating those parameters) that are associated with the Spread Response components of the CDS risk model, including as to applicability (index or single name or both), level of granularity (e.g., risk factor), update frequency and the source of the parameter estimations.

Time series associated with constant maturity benchmark tenors will be analysed and the distributions that describe the fluctuations of the benchmark tenors calibrated. The statistical parameters update will be performed at least on a monthly basis and controlled and managed through ICE Clear Europe internal systems.

The monitoring of the stress period selected for the scale parameter will be performed on a monthly basis in accordance with the CDS Risk Model Description. Changes to the stress period will be reviewed by the Clearing House's Clearing Risk Department with its Risk Working Group and MOC.

Jump-to-Default Requirement Parameters

The parameters impacting the JTD requirement are categorized as either LGD or WWR parameters. The Parameters Procedures explain how, in order to measure credit event losses, the Clearing House's Risk Department constructs JTD scenarios in terms of anticipated recovery rate ("RR") levels ("RR scenarios"). The Parameters Procedures describe RR scenarios and estimations for corporate SNs, sectors, and sovereign reference entities, and notes foreign exchange rate risk considerations with respect to sovereign reference entities. The Parameters Procedures require ICE Clear Europe to estimate and review the LGD parameters at least monthly and describes the associated governance process, noting the reviewers and any prerequisites to the implementation of parameter updates.

The Parameters Procedures also detail the process of setting and reviewing the WWR parameters. The Parameters Procedures contain information regarding the parameters that will be used to quantify WWR dependence and to compute WWR JTD requirements.

Basis Risk Requirements

The Parameters Procedures discuss how the Clearing House’s Risk Department maintains and monitors hypothetical portfolios representing basis trades between cleared index and single-name instruments. Basis risk is calibrated by comparing the P/Ls of such portfolios to estimated IM requirements, excluding any concentration charges.

Interest Rate Sensitivity Requirements

The Parameters Procedures contain information on the estimation and the review of the parameters that serve as inputs to the IR sensitivity component of the risk model. The IR sensitivity component accounts for the risk associated with changes in the default-free discount term structure used to price CDS instruments. With respect to the IR sensitivity requirement parameters, the Parameters Procedures specify how the risk department estimates the up and down parallel shifts for the US Dollar and Euro default-free discount term structures. The Parameters Procedures direct ICE Clear Europe to estimate and review the IR sensitivity requirement parameters at least monthly.

Liquidity Charge

The Parameters Procedures explain the process of setting and reviewing parameters for the liquidity charge component of the risk model. With respect to index instruments, the Parameters Procedures address the determination of bid/offer parameters from the default spread width matrix and other assumptions about liquidation cost of an index portfolio, and address procedures for review of that matrix. The Parameters Procedures also describe the parameters used in determining bid/offer widths for single names, including the use of price-based floor levels and spread-based volatility measures. The Parameters Procedures require the Clearing House to review the liquidity charge parameters at least monthly.

Concentration Charge

The Parameters Procedures discuss the estimation and the review of the concentration charge parameters, including detailing how the Risk Department establishes series-specific or SN-specific concentration charge threshold levels for each index or SN Risk Factor (“RF”), and how the Risk Department estimates concentration charge growth rates that determine how quickly concentration charges increase with position size. The Parameters Procedures direct the Clearing House to estimate and review the concentration charge parameters at least monthly.

Sensitivity Analysis

The Parameters Procedures detail the sensitivity analyses that the Clearing House performs to explore the sensitivity of the RM system’s outputs to certain model core parameters that are calibrated on an ad-hoc basis and to alternative data analyses and parameter estimation techniques. The Parameters Procedures also provide for summary reports of relevant analyses to be provided to the Risk Oversight Department or other relevant groups.

Portfolio Benefits Parameters

The portfolio benefits parameters control portfolio benefits during the computation of the SR with the stress based VaR approach. The Parameters Procedures describe the methods for monitoring the benefits and performing sensitivity analysis of potential parameter changes that reduce benefits.

Dependence Structure Shifts

The Parameters Procedures also address sensitivity analysis of portfolio benefits implemented during the computation of the SR under the MC simulation approach, based on different dependence structures. The approach is intended to guide the Risk Department in situations where back-testing results indicate excessive portfolio benefits.

SWWR Threshold Shift

The Parameters Procedures address sensitivity analysis with respect to model parameters that control the permitted level of index-derived SWWR, to provide guidance to the Risk Department in situations when a decision to fully collateralize SWWR is made upon a consultation with the Model Oversight Committee and the Product Risk Committee.

GWWR Correlation Shifts

Sensitivity analysis also considers GWWR arising from Clearing Members exposed to Western European Sovereigns when the Kendall tau rank-order correlation between the Member and the Sovereign entity is above a threshold. The sensitivity analysis will provide guidance to the risk departments in situations when an increase of the dependence among members and sovereigns might lead to changes in risk requirements.

MAD Level Shifts

The Parameters Procedures describe sensitivity analysis on MAD levels, which is performed by shifting all MAD estimates to their stress levels to provide information about the response of risk requirements to potential volatility shifts and to assess the viability of certain parameter-setting assumptions. This sensitivity analysis will provide guidance to the Risk Department about potential risk requirement changes in stress periods due to increase in volatility shifts.

EWMA Sensitivity Analysis

The Parameters Procedures address sensitivity analysis relating to the setting of the exponentially weighted moving average (“EWMA”) decay rate (“EWMA factor”), which may affect the procyclicality of the model.

Compliance with the Act and CFTC Regulations

The amendments are potentially relevant to the following core principle: (B) Financial Resources, (D) Risk Management, and (O) Governance and the applicable regulations of the Commission thereunder.

- *Financial Resources.* As discussed herein, the amendments to the Documents and the adoption of the Parameters Procedures are generally designed to enhance and clarify the descriptions of key ICE Clear Europe risk models and documentation used in determining margin and guaranty fund requirements for CDS contracts. Although the amendments are largely not intended to represent a change in Clearing House practices, or result in a material change in margin or guaranty fund requirements, they should enhance the clarity and ongoing monitoring and implementation of the margin and guaranty fund framework. In addition, as discussed herein, adopting the Parameters Procedures provides a clear framework for ICE Clear Europe to estimate and review the model core parameter settings and perform and review sensitivity analyses related to certain parameter settings on at least a monthly basis. As such, the amendments are consistent with, and will facilitate monitoring of compliance with, the Clearing House's financial resources requirements under Core Principle B and Commission Rule 39.11.
- *Risk Management.* The amendments make a number of improvements to key risk management policies and procedures. Specifically, the amendments to the CDS Stress Testing Policy will, as discussed above, enhance the stress testing of the Clearing House's financial resources by incorporating a wider range of extreme scenarios (including those reflecting the COVID-19 pandemic and recent market events) in stress testing, which are reviewed on at least a monthly basis. Other amendments clarify how the Clearing Risk Department addresses a scenario or portfolio in the standard set of stress scenarios no longer being applicable, or being superseded by new scenarios or portfolios, where the Clearing Risk Department wishes to retire or modify the outdated scenario or portfolio or add a new scenario.

 - In addition, amendments to the CDS Model Risk Description more clearly state the procedures for determining relevant prices should input data not be available from back-up sources, further strengthening ICE Clear Europe's strategies to ensure it has access to reliable sources of timely price data in compliance with this requirement. The amendments provide further detail regarding the treatment of data collected and the back-filling of missing data. The amendments to the CDS Risk Policy also strengthen the quality of intraday prices through enhanced intraday monitoring through additional comparisons of intraday prices with other ICE CDS clearing houses and third-party providers.
 - The amendments provide more detail regarding the IM methodology set out in the CDS Risk Policy, facilitating the maintenance of sufficient margin levels. The CDS Risk Policy amendments also provide that in the event that ICE Clear Europe is accepting sizable positions through the weekly back-loading process in the context of margin calls, it will pre-collect IM and mark-to-market changes, instead of just IM, to further ensure sufficient margin collection. Amendments to the IM methodology in the CDS Risk Model Description also enhance various aspects of the related risk analysis and related calculations.

- Overall, these amendments will strengthen ICE Clear Europe’s risk management policies and procedures, consistent with the risk management requirements of Core Principle D and Commission Rule 39.13.
- *Governance.* As discussed above, references to the roles of certain committees and departments with respect to reviews and approvals throughout the Documents have been updated to more clearly reflect existing practice with respect to the roles of relevant committees, departments and personnel. Where appropriate, references to the MRGF, which sets out further governance details, have been added throughout the documents. The amendments provide additional clarity with respect to Clearing House governance and lines of responsibility, consistent with the requirements of Core Principle O and CFTC Rule 39.24.

As set forth herein, the amendments consist of changes to the Documents and the adoption of the Parameters Procedures. ICE Clear Europe has requested confidential treatment with respect to the Documents and the Parameters Procedures, which have been submitted currently with this self-certification submission.

ICE Clear Europe hereby certifies that the amendments comply with the Act and the Commission’s regulations thereunder.

ICE Clear Europe has received no substantive opposing views in relation to the proposed rule amendments.

ICE Clear Europe has posted a notice of pending certification and a copy of this submission on its website concurrent with the filing of this submission.

If you or your staff should have any questions or comments or require further information regarding this submission, please do not hesitate to contact the undersigned at giulia.honorati@ice.com or +44 (0)20 7429 7127.

Very truly yours,



Giulia Honorati
Manager Compliance and Regulation