



Disclosure Framework

Responding institution:

ICE Clear Credit LLC

Jurisdictions in which the FMI operates:

United States

Authorities regulating, supervising or overseeing the FMI:

U.S. Commodity Futures Trading Commission
U.S. Securities and Exchange Commission

The date of this disclosure is **November 21, 2024**. This disclosure can also be found at **www.ice.com**. For further information, please contact ICE Clear Credit at info-ICEClearCredit@ice.com or 312.836.6890. Capitalized terms not otherwise defined herein shall have the meanings set forth in the ICC Rules.

Abbreviations:

ACP	Associate Clearing Participant
BCP	Business Continuity Plan
CCP	Central Counterparty
CDS	Credit Default Swap
CEA	Commodity Exchange Act
CFTC	U.S. Commodity Futures Trading Commission
CP	Clearing Participant
CRO	Chief Risk Officer
CRS	Credit Review Subcommittee
DCO	Derivatives Clearing Organization
DMS	Default Management System
ECS	Extensible Clearing System
EMIR	European Market Infrastructure Regulation
ESMA	European Securities and Markets Authority
FSOC	Financial Stability Oversight Council
FX	Foreign Exchange
GF	Guaranty Fund
ICC	ICE Clear Credit LLC
ICC Board	ICE Clear Credit Board of Managers
ICC Parent	ICE US Holding Company L.P.
ICC Rules	Rules of ICE Clear Credit LLC
ICE, Inc.	Intercontinental Exchange, Inc.
IM	Initial Margin
IT	Information Technology
LSOC	Legally Segregated, Operationally Commingled
MTM	Mark-to-Market
PFMI	Principles for Financial Market Infrastructures
PRC	Participant Review Committee
SCA	Securities Clearing Agency
SEA	Securities Exchange Act of 1934
SEC	U.S. Securities and Exchange Commission
SWWR	Specific Wrong Way Risk

I. Executive summary

The objective of this document (“Disclosure Framework”) is to provide relevant disclosure to market participants on the methods used by ICE Clear Credit LLC (“ICC”) to manage the risks it faces as a central counterparty (“CCP”).

The Disclosure Framework is prepared in accordance with the internationally recognized “Principles for Financial Market Infrastructures” (“PFMIs”) published in April 2012 and developed jointly by the Committee on Payments and Market Infrastructures¹ and the Technical Committee of the International Organization of Securities Commissions. No disclosure is provided with respect to Principles 11 and 24 as they do not apply to CCPs.

ICC is the world’s largest clearing house for credit default swaps (“CDS”). ICC has a robust risk management framework and performs clearing services for Clearing Participants (“CPs”) that include the most active firms in the CDS market. ICC launched in March 2009 as ICE Trust U.S. LLC and on July 16, 2011 converted to a Delaware limited liability company and changed its name to ICE Clear Credit LLC. ICC is registered with the U.S. Commodity Futures Trading Commission (“CFTC”) as a Derivatives Clearing Organization (“DCO”) and with the U.S. Securities and Exchange Commission (“SEC”) as a Securities Clearing Agency (“SCA”). ICC also is a systemically important financial market utility as designated by the Financial Stability Oversight Council (“FSOC”).

II. Summary of major changes since the last update of the disclosure

The initial version of ICC’s Disclosure Framework was dated December 31, 2013.

Since the last update, ICC has revised this document to reflect certain changes to ICC’s governance structure. Specifically, expansion of the ICC Risk Committee, addition of the ICC Risk Advisory Working Group, retirement of the ICC Risk Management Subcommittee and retirement of the ICC Advisory Committee. Additionally, the Disclosure Framework has been updated with current information (as of October 21, 2024) regarding ICC’s clearing statistics.

III. General background on the FMI

General description of the FMI and the markets it serves

ICC provides clearing services for U.S. and internationally domiciled CPs for proprietary clearing. CPs offering client clearing are solely registered in the United States due to regulatory requirements. ICC’s CPs are listed on the ICC website. ICC offers clearing services for various CDS products, including North American Corporate Single Names, North American Indices, European iTraxx Indices, European Corporate Single Names, Asia/Pacific iTraxx Indices, Emerging Market and Asia/Pacific Corporate Single Names, Sovereign Single Names and Emerging Markets Indices. ICC also offers clearing services for credit default index swaptions

¹ Formerly known as the Committee on Payment and Settlement Systems.

(“Index Swaptions”),² including CDX and iTraxx Index Swaptions. A current listing of all products cleared by ICC is available on the ICC website.

As of October 21, 2024, ICC lists 5,222 CDS instruments/reference entities for clearing. As of October 21, 2024, ICC had cleared 7,818,365 trades representing over \$222 trillion of gross notional value, resulting in open interest of approximately \$1.86 trillion. This data and additional information including volume by product type, open interest, valuation and the size of ICC’s Guaranty Fund (“GF”) is consistently updated and available on the ICC website.

General organization of the FMI

The ICC limited liability company operating agreement and the ICC Rules set forth the ICC governance structure and provide for the ICC Board and committees. ICC is wholly-owned by ICE US Holding Company L.P. (“ICC Parent”) which is owned by Intercontinental Exchange Holdings, Inc. and ultimately by ICE, Inc. ICE, Inc. operates regulated exchanges, clearing houses and listed venues for financial and commodity markets in the United States, the United Kingdom, Continental Europe, Asia, Israel, and Canada. ICC’s ownership structure is summarized below.



ICC’s Officers, including the Chief Operating Officer, Chief Risk Officer, Chief Compliance Officer, and General Counsel and Corporate Secretary, report to the ICC President. The ICC Chief Compliance Officer has an additional reporting line to the ICC Board. The ICC Chief Risk Officer has an additional reporting line to the Chairperson of the ICC Risk Committee (who also is a non-executive manager on the ICC Board). ICC’s governance structure is summarized below.

² 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 CDS transaction at a pre-determined strike price on a specified expiration date on specified terms.



Legal and regulatory framework

ICC launched in March 2009 as ICE Trust U.S. LLC, a limited purpose limited liability trust company registered with the New York State Banking Department and the Board of Governors of the Federal Reserve System.

On July 16, 2011, ICE Trust U.S. LLC converted to a Delaware limited liability company and changed its name to ICE Clear Credit LLC. ICC became registered with the CFTC as a DCO and registered with the SEC as a SCA, pursuant to Sections 725 and 763 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”). On July 18, 2012, the FSOC designated ICC as a systemically important financial market utility, under Title VIII of the Dodd-Frank Act.

ICC is subject to supervision by the CFTC and SEC and the CFTC is ICC’s designated supervisory agency, as appointed by FSOC under Title VIII of the Dodd-Frank Act. The CFTC reviews, assesses and enforces a DCO’s adherence to the Commodity Exchange Act (“CEA”) and the regulations promulgated thereunder on an ongoing basis, including but not limited to, the DCO’s compliance with eighteen “Core Principles” including principles relating to financial resources, participant and product eligibility, risk management, settlement procedures, treatment of funds, default rules and procedures, rule enforcement and system safeguards. ICC is subject to ongoing examination and inspection by the CFTC.

Additionally, ICC is a SCA as defined in the SEA. Accordingly, the SEC reviews, assesses and enforces a clearing agency’s adherence to the SEA and the regulations promulgated thereunder on an ongoing basis. The regulations include but are not limited to risk management; participant access; records of financial resources and audited financial statements; and minimum operating standards. As of July 13, 2020, ICC is a covered clearing agency subject to the enhanced requirements of Rule 17ad-22(e) of the SEA related to risk management, governance, and

recovery planning, among other things. ICC has frequent contact with the SEC, which includes regular reporting as well as reporting that arises on an “as requested” basis.

The CFTC has been charged with administering and enforcing the CEA. Accordingly, the CFTC is the U.S. government agency that has direct regulatory and oversight responsibility for DCOs. The CFTC has been designated by the FSOC as ICC’s designated supervisory agency. The CFTC monitors ICC’s operations and receives from ICC routine reports on various different executions and event specific reports related to, among other things, significant changes to the risk profiles of ICC and/or its CPs. The CFTC conducts periodic on-site examinations and holds regularly scheduled bimonthly meetings with ICC representatives.

While the CFTC has been designated by the FSOC as ICC’s designated supervisory agency, ICC also is registered with the SEC as an SCA and interacts directly with the SEC’s Division of Trading and Markets (formerly the Division of Market Regulation) and the Office of Compliance Inspections and Examinations. The SEC establishes and maintains standards for fair, orderly and efficient markets and regulates the major securities market participants, including broker-dealers, self-regulatory organizations (including stock exchanges and clearing agencies) and transfer agents. The SEC’s regulation of SCAs is pursuant to Section 17A of the SEA. The SEC monitors clearing at ICC and receives from ICC routine reports on various different executions. The SEC conducts periodic on-site examinations and holds regularly scheduled meetings with ICC representatives.

Additionally, ICC, as a systemically important financial market utility under Title VIII of the Dodd-Frank Act, is deemed a Qualified Central Counterparty by U.S. banking regulators. Furthermore, ICC adheres to CFTC rules designed to meet the international standards set forth in the PFMIs. ICC is also compliant with regulatory requirements in relevant jurisdictions. ICC is recognized by the European Securities and Markets Authority (“ESMA”) as a Tier 1 third-country CCP under Article 25 of European Market Infrastructure Regulation (“EMIR”) to provide its clearing services in the European Union; ICC is recognized for the entirety of its business (both CFTC-supervised and SEC-supervised). ICC is a Clearing Agency Exempt from Recognition in Ontario, Canada; a Recognized Clearing House in Singapore under the Securities and Futures Act; and a foreign CCP in Switzerland under the Financial Market Infrastructure Act. ICC is also a third-country CCP that is deemed recognized to provide clearing services in the United Kingdom by virtue of the United Kingdom’s Temporary Recognition Regime.³

Further, ICC has obtained legal opinions detailing that, subject to the customary qualifications and assumptions found in such legal opinions, ICC will be able to enforce the ICC Rules, including collateral, liquidation and netting provisions, in the U.S. and relevant jurisdictions. Moreover, ICC has obtained legal opinions that support the view that Initial Margin (“IM”) posted with ICC (in respect of house origin positions) is bankruptcy-remote in the event of ICC’s default, liquidation, or insolvency and that payments of Mark-to-Market (“MTM”) Margin are settlement payments rather than pledges of collateral.

Systems design and operations

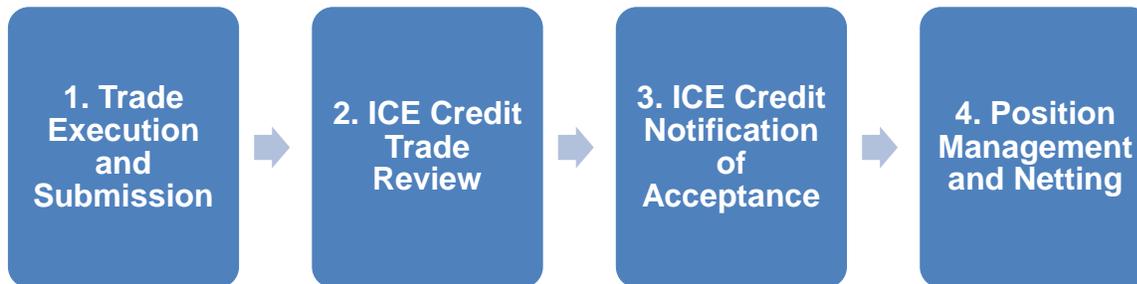
ICC’s clearing solution enables its CPs and their clients to trade through Trade Date Clearing or through the Weekly Backload Cycle.

³ The Temporary Recognition Regime will last until December 31, 2025, extendable by the HM Treasury.

As part of the clearing process, ICC handles payments (Upfront Fees, Quarterly Coupons & Credit Events); lifecycle events (restructuring, succession, renames, hard credit events etc.); position management and trade compression.

Trade Date clearing:

CPs and Clients can submit both Authorized Trading Facility (e.g. Swap Execution Facility, Multilateral Trading Facility) executed trades and off-facility trades to ICC. Trades are processed between 3:00AM ET (8:00AM London Time) and 6:00PM ET. In accordance with ICC Rule 212, ICC may establish different daily deadlines for the submission of trades for clearing by ACPs as compared to the deadlines applicable to Full Participants.



Weekly Backload Cycle:

CPs and Clients can clear historical bilateral trades through the Weekly Backload Cycle. The steps are as follows:

Day*	Time (ET)	CP-to-CP Weekly Backloading
Day 1 (Mon)	5:00PM	ICC receives a file containing all trades in the clearing eligible instruments where the buyer and seller of protection are ICC CPs.
Day 2 (Tues)	1:00AM	ICC creates a "Clearing Eligible Trade" file for each CP containing all trades that can be potentially cleared.
Day 3 (Wed)	9:00AM	Each CP uploads its "Clearing Eligible Trade" file to ICC identifying the specific trades that are not to be cleared.
Day 4 (Thurs)	1:00AM	ICC uses the proposed trades to estimate each CP's margin. ICC identifies trades where both the buying CP and selling CP want to clear the bilateral trade.
Day 5 (Fri)	1:00AM - 10:00AM	CPs review the Final Clearing Instructions File.
	10:15AM - 3:00PM	Clearing information is processed.

Day*	Time (ET)	Client Weekly Backloading
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Days 1 – 2 (Mon-Tues)	5:00PM	Clients select bilateral positions for backloading via the ICE Link user interface. The counterparty must be an ICC CP. The counterparty and the FCM must affirm the client backload by close of business Tuesday.
Day 3 (Wed)	9:00AM	ICC receives affirmed client backloads.
Day 4 (Thurs)	1:00AM	Pre-clearing reports generated for CPs, including margin requirements.
Day 5 (Fri)	1:00PM	ICC collects any required IM from CPs.
	1:00PM - 3:00PM	Bilateral terminations and cleared new trades are processed.

**The weekly clearing cycle runs from Monday to Friday. If there is a clearing holiday the weekly cycle may be adjusted. Any changes to the weekly backload schedule are communicated externally via an ICC Circular.*

IV. Principle-by-principle summary narrative disclosure

Principle 1: Legal Basis

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

Summary narrative

ICC has a well-founded, clear, transparent and enforceable legal basis for each aspect of its activities in all relevant jurisdictions.

ICC, as a CFTC registered DCO, is subject to the CEA and the related CFTC regulations. ICC is supervised by the CFTC which reviews, assesses and enforces ICC’s adherence to the CEA and the regulations promulgated thereunder on an ongoing basis, including but not limited to, compliance with eighteen “Core Principles.” ICC also has been designated as a systemically important financial market utility by FSOC, and the CFTC is ICC’s designated supervisory agency, as appointed by FSOC under Title VIII of the Dodd-Frank Act. In addition, ICC also is registered with the SEC as an SCA and as a result is subject to oversight by the SEC. The SEC maintains standards for fair, orderly and efficient markets and regulates SCAs pursuant to Section 17A of the SEA. As a covered clearing agency, ICC is also subject to the enhanced requirements in Rule 17ad-22(e) of the SEA related to risk management, governance, and recovery planning, among other things.

Included in the CEA DCO Core Principles is Core Principle R⁴ - Legal Risk - which requires CFTC registered DCOs to have well-founded, transparent, and enforceable legal frameworks for each aspect of their activities. Under CFTC regulations implementing Core Principle R⁵, such legal frameworks shall provide for the registered DCO’s ability to act as a counterparty, including novation; provide for netting arrangements; interest in collateral; default management; finality of settlement; and other significant operational and risk management requirements.

As a U.S. based, CFTC and SEC registered clearing house, the legal framework for ICC’s operations are the CEA, the SEA, the applicable CFTC and SEC regulations promulgated respectively thereunder, and ICC’s Rules, policies and procedures. ICC Rules include provisions that address each of the areas required by CFTC regulations under Core Principle R, and as a result form the legal basis for ICC’s clearing activities. Specifically, and by way of example, Chapter 3 of ICC Rules sets forth provisions related to the clearing of contracts, including rules related to offsets (Rule 304); acceptance of contracts for clearing by ICC (Rule 309), whereby ICC is substituted as the counterparty to each buyer and to each seller through novation, including the time at which such contract is irrevocably accepted for clearing. In addition, ICC Rules and related procedures cover default management (e.g., Rule 20-605), which are designed to manage a CP default.

ICC is a Delaware limited liability company in good standing. ICC is governed by its limited liability company operating agreement and the ICC Rules (construed in

⁴ CEA § 5b(c)(2)(R).
⁵ CFTC Regulation 39.27.

accordance with New York law). Each CP accedes to the ICC Rules through execution of the Participant Agreement governed by the laws of the State of New York, United States of America, whereby the CP, among other matters, agrees to abide by and be subject to the ICC Rules, regulations and other policies and procedures of ICC as may be amended and modified from time to time. The ICC Rules are subject to extensive market participant and regulatory consultation and governance requirements. As appropriate, ICC's Rules and related policies and procedures were drafted in consultation with, and continue to be amended with the assistance of external legal counsel. ICC Rules are publicly available on its website, and this publicly available Disclosure Framework describes various key aspects and risks of clearing and the ICC Rules.

In addition to the U.S., ICC has CPs domiciled in foreign jurisdictions (U.K.; France; Germany; Italy; Switzerland; and Canada - collectively the "Relevant Jurisdictions"). ICC has obtained legal advice detailing that, subject to the customary qualifications and assumptions, ICC will be able to enforce the ICC Rules, including collateral, liquidation and netting provisions, in the U.S. and the Relevant Jurisdictions. Additionally, ICC has obtained legal opinions that support the view that IM posted with ICC (in respect of house origin positions) is bankruptcy-remote in the event of ICC's default, liquidation, or insolvency and that payments of MTM Margin are settlement payments rather than pledges of collateral. Before accepting a CP from any additional non-U.S. jurisdiction, as part of the legal enforceability reviews identified above, ICC will evaluate whether accepting a CP from such non-U.S. jurisdiction raises any potential conflict of laws issues. Should the laws of such non-U.S. jurisdiction prevent or hinder the enforcement of ICC Rules, ICC will not accept such potential CP as an ICC member.

ICC is compliant with regulatory requirements in the Relevant Jurisdictions. Specifically, ICC is a Clearing Agency Exempt from Recognition in Ontario, Canada.⁶ ICC is recognized by ESMA as a Tier 1 third-country CCP under Article 25 of EMIR to provide its clearing services in the European Union. ICC is recognized as a Recognized Clearing House in Singapore under section 51(2) of the Securities and Futures Act⁷. ICC is authorized as a foreign CCP in Switzerland under article 60 of the Financial Market Infrastructure Act. ICC is also a third-country CCP that is deemed recognized to provide clearing services in the United Kingdom by virtue of the United Kingdom's Temporary Recognition Regime. On an ongoing basis, ICC assesses and assures its compliance with all relevant regulations.

As a CFTC-regulated DCO and SEC-regulated SCA, ICC files all changes to the ICC Rules with both the CFTC and SEC. Prior to filing with its regulators, in accordance with the ICC Rules, ICC's committees provide recommendations to the ICC Board and the ICC Board must provide approval. The governance process allows multiple stakeholders to provide input and feedback regarding ICC Rule amendments.

⁶ ICC is in the process of applying for, and believes it meets all criteria to receive, an exemption from recognition status in Quebec, Canada.

⁷ ICC's recognition as a Recognized Clearing House is restricted to its operation of a clearing facility for the clearing of specified derivatives contracts (as defined under the Securities and Futures Act). The rights and remedies available to ICC CPs (as stated in the rules, procedures and policies of ICC) are governed by US law; such rights and remedies may differ from the rights and remedies available to CPs who access approved clearing houses in Singapore.

Parts 39 and 40 of the CFTC Regulations require changes to ICC's Rules, including interpretations or resolutions, to be either certified to the CFTC as being in compliance with the CEA and CFTC Regulations or submitted to the CFTC for approval. Furthermore, as a designated systemically important financial market utility, with respect to rule changes that could materially affect the nature or level of risks presented by ICC, such rule changes are subjected to a heightened regulatory review process which includes CFTC consultation with the Board of Governors of the Federal Reserve pursuant to Section 806 of Title VIII of the Dodd-Frank Act. The CFTC may notify a DCO that the proposed change does not comply with the CEA or CFTC Regulations and may require action to comply with the law.

In addition, as a designated systemically important financial market utility, pursuant to Title VIII of the Dodd-Frank Act, ICC is subject to annual examination by the CFTC which also involves the Board of Governors of the Federal Reserve. Such exams are designed to test ICC compliance with specific CEA Core Principles and the related CFTC regulations.

Section 19(b) of the SEA requires proposed changes to the ICC Rules to be submitted to the SEC for approval. The SEC approves proposed rules or institutes proceedings to determine whether the proposed rules do not comply with the SEA or if additional action is required to comply with the law.

In accordance with applicable regulation, ICC posts all filings for changes to the ICC Rules on the ICC website. In addition, ICC provides further guidance to CPs, when necessary, through circulars, also posted to the ICC website.

Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

Summary narrative

ICC has governance arrangements that are clear and transparent, promote its safety and efficiency and support the stability of the broader financial system, other relevant public interest considerations and the objectives of relevant stakeholders.

The safety and efficiency of ICC are its highest priorities as communicated in ICC’s Board-determined Mission Statement:

Provide safe and sound central counterparty services to reduce systemic risk in an efficient and compliant manner while generating positive returns for shareholders.

ICC has a clearly documented, robust governance structure including the ICC Board, committees and management.

The ICC Board has sole responsibility for the control and management of ICC’s operations, subject only to prior consultation rights of the ICC Risk Committee as provided in Chapter 5 of the ICC Rules. The ICC Board may delegate authority to ICC management or to others to act on its behalf. Furthermore, if the ICC Board deems necessary to fulfill its duties, it may engage subject matter experts to provide pertinent information and advice.

The ICC Board is actively involved in overseeing ICC’s performance against its objectives and business risks as part of standard governance processes. To aid in this process, and with support from the ICE, Inc. Enterprise Risk Management Department, ICC maintains a Risk Appetite Framework which allows both ICC management and the ICC Board to monitor and manage risk. The ICE, Inc. Enterprise Risk Management Department provides the oversight and framework for identifying, assessing, managing, monitoring and reporting on risk across the ICE, Inc. organization and has dedicated resources focused on ICC. Specifically, the Risk Appetite Framework is designed to provide a process to engage the ICC Board with respect to enterprise risk management, including clearing risk, operational risk, legal/regulatory risk, and financial risk. With respect to each of the above identified areas of risk, ICC has established a set of Risk Appetite Statements, Metrics and Thresholds. The ICC Board is responsible for ensuring that both the Risk Appetite Framework and the Risk Appetite Statements, Metrics and Thresholds are compatible and consistent with ICC’s corporate objectives articulated in its Mission Statement.

The ICC Board has nine members, which are composed of suitable members, and a suitable mix of members, with the appropriate skills and incentives to effectively discharge its duties. All Board members must, in the judgment of the ICC Parent, possess strong personal attributes and relevant business experience to assure effective service on the ICC Board. Personal attributes considered by ICC and the ICC Parent include leadership, integrity, high ethical standards, contributing nature, independence, sound judgment, interpersonal skills and effectiveness. Relevant

experience considered by ICC and the ICC Parent includes risk management knowledge, financial acumen (including financial, accounting and auditing experience), general business experience, industry knowledge, diversity of viewpoints, special business experience, knowledge of business systems and information technology, and expertise in an area relevant to ICC.

Five members of the ICC Board are appointed by the ICC Parent. The ICC Parent representatives include two members of ICE, Inc. management and three members who are independent. The additional four members of the ICC Board are nominated by the ICC Risk Committee, two are independent and two need not be independent. All ICC Board members are ultimately elected by the ICC Parent. The independence of ICC Board members is determined in accordance with the requirements of each of the NYSE listing standards⁸, the SEA⁹ and ICE, Inc.'s Board of Director Governance Principles¹⁰ (such requirements collectively, the "Independence Requirements"). The ICC Board has full responsibility for the operations of ICC and approves ICC's initiatives without any requirements for approval from the ICC Parent or ICE, Inc. ICC maintains a Code of Conduct and Business Ethics applicable to its Board that provides for the resolution of conflicts of interest; this is reviewed on at least an annual basis with the ICC Board. On an annual basis, ICC reviews ICC Board performance (inclusive of feedback solicited from ICC Board members).

In addition to the ICC Board, ICC's committees are actively involved in the ICC governance process. Such committee structure is designed, in part, to ensure ICC's design, rules, overall strategy and major decisions reflect appropriately the legitimate interests of direct and indirect market participants and other stakeholders. The primary ICC governance committees are the ICC Risk Committee, ICC Risk Advisory Working Group, ICC Audit Committee and ICC Business Conduct Committee. ICC's governance structure supports a proper balance among the interests of ICC's ownership and users of the ICC clearing service.

The ICC Risk Committee is designed to provide industry expertise to the ICC Board and to provide members a forum to convey input related to risk issues. The ICC Risk Committee is comprised of fourteen members: nine representatives of CPs, two representatives of customers of CPs and three members appointed by the ICC Parent (two members of management and one ICC Board member who meets the Independence Requirements who serves as the chair). As documented in the ICC Rules, each member of the ICC Risk Committee must have risk management experience and expertise and is subject to ICC Board approval. The ICC Risk Committee provides recommendations to the ICC Board for consideration; however, the ICC Board is not required to accept any ICC Risk Committee recommendations and has the ultimate authority to decide all ICC matters.

The ICC Risk Advisory Working Group provides risk-based input to ICC and the ICC Risk Committee on all matters that could materially affect the risk profile of ICC. The ICC Risk Advisory Working Group is comprised of the ICC Chief Risk Officer who

⁸ See Section 303A.00 Corporate Governance Standards: 303A.02: Independence Tests: https://nyseguide.srorules.com/listed-company-manual/document?treeNodeId=csh-da-filter!WKUS-TAL-DOCS-PHC-%7B0588BF4A-D3B5-4B91-94EA-BE9F17057DF0%7D--WKUS_TAL_5667%23teid-70.

⁹ Exchange Act Section 10A-3.

¹⁰ https://s2.q4cdn.com/154085107/files/doc_downloads/governance_docs/ICE-Independence-Policy.pdf.

serves as the chair; a minimum of two members who are representatives of CP's; and a minimum of two members who are representatives of customers of CP's. As documented in the ICC Rules, each member of the ICC Risk Advisory Working Group must have risk management expertise and is appointed by the ICC President, subject to the approval of the ICC Risk Committee.

The ICC Audit Committee consists of at least three ICC Board members who meet the Independence Requirements. The ICC Audit Committee provides the ICC Board with an independent opinion and makes recommendations on matters of importance to ICC's financial condition; financial information, policies, practices, systems and controls; legal and regulatory compliance relating to financial matters; and business ethics.

The ICC Business Conduct Committee is responsible for responding to, and overseeing the investigation of suspected ICC Rule violations. The ICC Business Conduct Committee is comprised of the ICC Board members who meet the Independence Requirements and are appointed by the ICC Parent. ICC management and the ICC Risk Committee may refer potential rule violations to the ICC Business Conduct Committee for investigation and the ICC Business Conduct Committee has the authority to request, receive and review written reports with respect to the suspected violation.

ICC's management is appointed by the ICC Board following a determination that the individual members of management possess the requisite experience and skills to discharge their responsibilities. ICC's Officers, including the Chief Operating Officer, Chief Compliance Officer, Chief Risk Officer and General Counsel and Corporate Secretary, report to the ICC President. The ICC Chief Compliance Officer has an additional reporting line directly to the ICC Board, and the ICC Chief Risk Officer has an additional reporting line directly to the Chairperson of the ICC Risk Committee, who also is a non-executive manager on the ICC Board. ICC Management is responsible for implementing the decisions of the ICC Board, and the ICC Board monitors and reviews the performance of ICC senior management to consider whether senior management continues to have the appropriate experience, skills, and integrity necessary to discharge their responsibilities.

ICC has a clear and documented risk management framework that includes ICC's clearing risk-tolerance policy, assigns responsibilities and accountability for risk decisions and addresses decision making in crises and emergencies, all of which has been developed under the direction and approval of the ICC Board. ICC maintains a set of confidential policies and procedures that provide details about ICC's risk management framework. Material changes to these documents are reviewed by the ICC Risk Committee, approved by the ICC Board and submitted, in the appropriate format, to regulators.

The ICC Risk Management Department consists of a Chief Risk Officer ("CRO") and staff members, who conduct the daily risk analysis responsibilities. The CRO has daily contact with the ICC President and frequently reports on risk issues to the ICC Board. The CRO reports on all issues requiring ICC Board consideration or that are in response to items raised by the ICC Board.

	<p>The ICC Board and ICC management assess ICC’s performance by reviewing risk reports, operational risk reports, financial statements and compliance reports. ICC seeks independent model validation prior to material changes to its risk management framework. Additionally, ICC performs ongoing model performance reviews.</p> <p>As detailed above as well as in Principle 1, ICC has a robust governance process, including diverse committees, the ICC Board and ultimately, regulatory review. This allows multiple relevant stakeholders to provide input and feedback regarding ICC’s Rules and procedures. Major decisions of the Board are clearly disclosed to CPs, other relevant stakeholders, and to ICC’s regulators. In addition, major decisions of the Board having a broad market impact (e.g. declaration of default with respect to an ICC CP) also are clearly disclosed to the public.</p>
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Principle 3: Framework for the comprehensive management of risks

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

Summary narrative

ICC has a sound risk management framework for comprehensively managing legal, credit, liquidity, operational and other risks. With support from the ICE, Inc. Enterprise Risk Management Department, ICC maintains a Risk Appetite Framework which allows both ICC management and the ICC Board to monitor and manage risk.

ICC’s risk management program includes risk management policies, procedures and systems that enable ICC to identify, measure, monitor and manage the risks faced by ICC including legal, credit, liquidity, operational, systemic, collateral, investment and settlement risk. The policies and procedures that comprise ICC’s risk management framework are reviewed by the ICC Risk Committee and reviewed and approved by the ICC Board on an as-needed basis, no less than annually. The ICC Risk Advisory Working Group provides risk-based input to the ICC Risk Committee when the foregoing matters could materially affect ICC’s risk profile.

Legal risk is managed by ICC through monitoring for amendments and interpretative changes to applicable regulations as well as consistent monitoring for ongoing compliance with existing regulations.

ICC’s management of credit risk is addressed in detail under Principle 4.

Liquidity risk is measured, monitored and managed by ICC in accordance with its liquidity risk program as discussed under Principle 7.

Operational risk is addressed by ICC through setting thresholds and tolerance levels, breaches of which are tracked and reported, as applicable, to the ICC Board and regulators. Operational risk management includes monitoring of ICC’s service providers and planning for business continuity under various scenarios. Operational risk is addressed under Principle 17.

Systemic risk is managed through several aspects of ICC’s risk management framework, including monitoring of CPs and financial service providers (i.e., the entities to which ICC has actual or potential credit exposure; e.g., settlement banks, custodians, depositories, reverse repo providers, committed repo providers, and committed foreign exchange (“FX”) providers). The ICC systemic risk approach is discussed in greater detail under Principle 4.

Collateral risk management focuses on the value, quality and liquidity of assets and is addressed through proper CP collateral management. Collateral is discussed in detail under Principle 5.

ICC addresses investment risk in its investment policy, which incorporates applicable regulations. ICC’s investment policy limits the investment instruments to those with high credit quality, high liquidity and low price volatility. All changes to the investment policy are reviewed by the ICC Risk Committee and approved by the ICC Board. Custody and investment risks are covered under Principle 16.

Settlement risk is mitigated through payment deadlines that are clearly detailed in ICC policies and procedures. Additionally, ICC monitors settlement banks on an ongoing basis and a monthly report is presented to the ICC Risk Committee. The ICC Risk Management Department also monitors all of its financial service providers in terms of financial health and ability to fulfill obligations.

ICC incentivizes CPs to manage risk by utilizing dynamic IM and GF calculations that consider CP risk and financial health as monitored by ICC.

The ICC default management and recovery and wind-down plans provide for the ongoing provision of clearing services during recovery as well as an orderly process in the event wind-down becomes necessary. As part of ICC's recovery and wind-down plans, ICC has identified scenarios that may potentially prevent it from being able to provide its critical operations and service as a going concern and assessed the effectiveness of a full range of options for recovery or orderly wind-down. Additionally, ICC complies with CFTC Regulation 39.39(c)(1) and has procedures in place for informing applicable regulators, as soon as practicable, when its recovery plan is initiated or a wind-down is pending. ICC's recovery and wind-down plans are reviewed by the ICC Board on an annual basis. Additional information is available under Principle 13 and Principle 15.

ICC assesses the effectiveness of its risk management policies, procedures and systems by adopting the following measures:

- Committee Oversight - as part of the governance process, the ICC Risk Committee, Audit Committee and ICC Board routinely review ICC's policies.
- Model Validation Framework - which provides for the independent validation of risk models prior to application of a new model or a change to a model, as well as on a routine basis.
- Internal Audit Department - which provides regular, periodic assurance over the risk management framework, including policies and procedures and the risk management activities undertaken by ICC. The internal audit function employs a risk-based approach to assess the efficiency and effectiveness of the design and operation of internal controls and risk management and periodically provides assurance to ICC senior management and the ICC Board.

ICC's senior management is responsible in the first instance for identifying, measuring, monitoring, managing and reporting fluctuations in risk intensity, changing environments and market practices. The second and third lines of defense (i.e., compliance/legal/enterprise risk management and internal audit) are responsible for keeping the risk frameworks under review and reporting to ICC senior management, the ICC Board and governance committees as required and appropriate, taking into account historical market experience, forward-looking market indicators, material changes to CPs' portfolio composition, and other relevant factors.

ICC provides a range of information to CPs and, where relevant, to their underlying customers to enable them to manage and contain the risks posed to ICC, including, without limitation, feedback on the counterparty Credit Rating System; any issues identified in membership applications and from ongoing membership oversight and due diligence; daily reporting of margin requirements and positions; daily reporting of GF

	requirements; and results of stress testing and back testing.
<p><i>Principle 4: Credit Risk</i></p> <p><i>An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.</i></p>	
<p>Summary narrative</p>	<p>ICC effectively measures, monitors and manages its credit exposures to CPs and those arising from its payment, clearing and settlement process. ICC maintains sufficient resources to cover its credit exposure to each CP fully with a high degree of confidence. In addition, ICC maintains financial resources sufficient to cover a wide range of potential stress scenarios, including the default of the two CP affiliate groups¹¹ that would potentially cause the largest aggregate credit exposure to ICC in extreme but plausible market conditions.</p> <p>To mitigate credit risk, ICC actively monitors credit exposure to CPs and conducts due diligence and on-going monitoring for CPs, settlement banks and other financial service providers. ICC’s risk management techniques are comprehensive and specifically designed to prevent the accumulation of losses, ensure sufficient resources are available to cover future obligations and promptly detect financial and operational weaknesses. ICC’s risk model is robust and extends to Index Swaptions to facilitate ICC’s ability to manage the participant default risk with respect to Index Swaptions and to address the credit exposure to participants with respect to Index Swaptions. ICC provides for risk management measures in relation to clearing services for Index Swaptions, including 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, as well as stress testing, back testing, and liquidity stress testing in connection with Index Swaptions. Further, ICC seeks independent review of proposed substantive changes to its risk model. A full independent validation of ICC’s risk model is performed at least once in every twelve months.</p> <p>In its operation as a clearing house, ICC acts as a CCP and rigorously controls the risks it assumes. ICC’s activities are designed and focused on ensuring that it maintains best practices and serves public interest.</p> <p>ICC has a systemic risk management approach based on a six-tier protection design. The strength of the approach is that each tier builds on the other tiers, and all tiers apply to all CPs without exception. Tier 1, membership criteria, is discussed in detail</p>

¹¹ The set of all affiliated CPs is considered as a CP affiliate group.

under Principle 18. The resources in Tiers 2-4 are margin-related and discussed under Principle 6. Tiers 5 and 6 are GF-related and discussed below.

ICC requires all CPs to participate in funding the GF. The GF mutualizes losses under extreme but plausible market scenarios. The ICC GF is designed to provide adequate funds to cover losses associated with the default of the two CP affiliate groups that would potentially cause the largest aggregate credit exposure to ICC in extreme but plausible market conditions. The GF methodology computes the magnitude of potential losses based on a comprehensive set of stress test scenarios. ICC assesses currency specific GF contributions for portfolios containing cleared instruments denominated in different currencies.

Funds to meet GF requirements are requested on the first business day of every month. However, if a CP's daily estimated GF requirements exceed by an increase of 5% or more their GF collateral on deposit, additional GF contributions will be called and must be met in cash by the end of the business day. Additionally, ICC has the authority to request additional GF contributions as necessary to protect the interests of ICC. The ICC GF includes a capital contribution of \$50 million from ICC. ICC's participation represents ICC's commitment to ensure that ICC's economic interest is aligned with the CPs.

The last tier of ICC's systemic risk management approach obligates remaining CPs to contribute additional amounts to the GF to maintain a GF deposit equal to their required contribution in the event any portion of the GF is consumed.

ICC uses a direct settlement model to manage daily and special cash movements. Cash settlement is relevant for the payment of IM and MTM Margin as well as trade payments (e.g., upfront fees, coupons and cash settlement of credit event) and GF requirements.

In order to maintain adequate liquidity each day for required payments and settlements, ICC requires CPs to maintain tiers of assets for both IM and GF, as detailed under Principle 7. In the event of a default, ICC will have a material portion of IM and GF assets in cash to meet same day requirements. ICC does not extend intraday credit to CPs.

ICC conducts rigorous stress testing to ensure adequate financial resources. Stress testing allows ICC to discover any potential weaknesses in the risk methodologies as well as to exercise short-term measures if the tests reveal that any CPs are inadequately collateralized. ICC tests ad-hoc scenarios along with the pre-defined scenarios to study the impact of marketplace events on the risks faced by ICC. Overall, ICC's stress test scenarios include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Stress scenarios are applied to actual portfolios that are cleared by ICC as well as randomly generated and pre-defined sample portfolios.

Stress testing is executed daily, with weekly reporting using standard and predetermined parameters and assumptions. On at least a monthly basis, ICC

performs a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameter assumptions used to ensure they remain appropriate. Such analysis will be performed more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by ICC's CPs increase significantly.

In the event that the stress testing results show inadequate collateralization, details of the stress tests and analysis of the stress test results are provided to ICC management. ICC's regulators and the ICC Risk Committee are provided a comprehensive set of risk reports on a weekly basis, and, additionally, the ICC Risk Committee reviews the risk reports, including the stress testing reports, during its monthly meetings. At ICC Risk Committee meetings, ICC presents analysis of the stress test results as well as any recommendations on the potential addition or retirement of stress tests. The ICC Board reviews the risk reports on a quarterly basis. ICC also conducts back testing and sensitivity analysis, as discussed under Principle 6.

ICC rules and procedures for addressing credit losses resulting from a CP default are described under Principle 13. ICC may, as part of its recovery plan, implement reduced gains distributions. Reduced gain distribution will allow ICC to reduce payment of variation, or MTM, gains that would otherwise be owed to CPs, as ICC attempts a secondary auction or conducts a partial tear-up. Following the conclusion of the closing-out process for a default, ICC will apply any recoveries from the defaulting CP pursuant to the reverse waterfall, set forth in the ICC Rules.

In addition, ICC has obtained CP Default Insurance that will potentially cover up to \$75 million in losses from a CP default to the extent that the defaulting CP's obligations to ICC exceed the sum of: (1) the defaulting CP's available margin and GF contributions; and (2) the ICC "skin in the game" contributions to default resources. This supplements, and does not result in a reduction or otherwise replace, the other resources available to ICC in the event of a CP default.

In the event that ICC experiences credit losses from a non-CP default, a variety of recovery actions could be executed if necessary. ICC also has rules that address the treatment of certain investment losses, custodial losses and other non-default losses (in each case, losses that do not arise from the default of a CP). Such rules and actions are described under Principle 15.

Changes to the ICC risk management framework are vetted through the ICC governance process, which includes the ICC Risk Committee, the ICC Board and applicable regulators, as discussed under Principle 1.

Principle 5: Collateral

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Summary narrative

ICC requires collateral with low credit, liquidity and market risks to manage its CPs' credit exposure. ICC requires and enforces conservative haircuts and concentration limits.

ICC CPs are required to post margin and contribute to the GF to collateralize their individual credit exposure to ICC. ICC limits the assets it accepts as collateral to those with low credit, liquidity, and market risks. ICC requires a high percentage of margin and GF contributions to be in cash, in the currency of the underlying obligation (i.e., U.S. dollar or Euro), all in accordance with ICC collateral thresholds. Acceptable forms of non-cash collateral for IM and GF contributions are limited to U.S. Treasury securities (excluding Floating Rate Notes and STRIPS). The ICC collateral thresholds are set forth in the ICC Rules and described in the ICC CDS Collateral Management document, which is available on the ICC website.

ICC revalues its collateral holdings daily. The daily market value of collateral is an input to the end-of-day processing and margin deficits related to changes in collateral valuations are included in the daily margin calls. Collateral also is monitored to ensure compliance with ICC collateral thresholds. Collateral amounts, quality, and liquidity are monitored daily by the ICC Treasury Department.

Valuations of collateral held at ICC include appropriate haircuts designed to account for potential decline in asset liquidation value during stressed market conditions. ICC's current haircuts are posted on the website in the ICC CDS Collateral Management document. Haircuts are reviewed at least monthly by the ICC Risk Department, but may be updated more frequently if necessary due to significant market condition changes. In setting and monitoring haircut levels, ICC uses a risk model that forecasts adverse 5-day fluctuations in value. In addition, ICC conducts back testing to verify that the risk model is performing properly.

The cash component of house-origin IM deposits, and all MTM payments, are required to be made in the currency of denomination of the underlying instruments, either U.S. dollar or Euro, based on ICC's current clearing offering. Furthermore, ICC requires currency specific GF contributions based on the denomination of the underlying CP portfolio. Such requirements align ICC's currency holdings with the currency of the underlying obligations. However, ICC has access to a committed FX facility, and, to the extent necessary, ICC will initiate FX spot transactions to ensure it has access to the proper currency in the appropriate amount.

The Extensible Clearing System ("ECS") is the collateral management system developed and maintained by ICE, Inc. The system is well established and used by all clearing houses in the ICE group. Regular maintenance is undertaken to reflect developments in the market. The ECS system provides CPs with information about the assets deposited and can be used by CPs to instruct the transfer of cash or securities and, when there is surplus collateral in place, to instruct the withdrawal of assets.

Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Summary narrative

ICC covers its credit exposures to its CPs for all products through an effective margin system that is risk-based and regularly reviewed.

ICC’s margin methodology is well documented and provided to all CPs. Adequate but not excessive margins are collected to collateralize risk. ICC’s IM requirements include integrated spread response requirements, bid-offer requirements, jump-to-default requirements, large position requirements (concentration charges), interest rate sensitivity requirements, basis risk requirements, and incorporate currency specific attribution analysis. All these individual requirements are added together to establish the total IM requirement for a portfolio. The methodology includes the testing of defined stress scenarios estimated based upon at least a 5-day risk horizon. For less actively traded instruments and instruments traded in different geographic regions, the 5-day risk horizon may be extended to provide adequate risk protection. A Monte Carlo-based methodology is applied to the integrated spread response requirement, which allows ICC to consider a large set of scenarios to more appropriately capture portfolio risk, including the risk of more complex non-linear instruments. ICC’s IM model utilizes a 5-day 99.5% Value-at-Risk measure and allows ICC to be compliant with EMIR as applied to Over-The-Counter instruments. Index Swaption instruments are included in ICC’s IM components and ICC accordingly sets appropriate IM levels for these products. In particular, Index Swaptions are incorporated into the Monte Carlo-based integrated spread response requirement that considers single name, index and Index Swaption positions in one portfolio. The IM (and GF) approach for Index Swaptions is an extension of the existing index and single name methodologies for IM (and GF). Collectively, ICC believes this methodology and the selected risk parameters provide a robust and conservative IM approach.

ICC has currency specific requirements for portfolios comprising cleared instruments denominated in different currencies. To address portfolios that present specific wrong way risk (“SWWR”) (risk related to self-referencing trades) additional jump-to-default requirements exist. Margin requirements for each CP are calculated and communicated at least once each day (by 4:00am ET) and margin is due no later than 9:00am ET.

On a daily basis, concurrent with the calculation of IM for new positions, ICC calculates the MTM payment requirements for all CPs. ICC determines the replacement value of each of its CPs’ cleared positions based on end-of-day prices determined through ICC’s price discovery process. Any MTM deficits are payable in cash and included in the daily settlement process. MTM is calculated and collateralized in the currency of the instrument.

Intraday, the adequacy of the collected IM is actively monitored and supported by automated feeds of the available intraday price data. This data is used to measure each CP’s intraday unrealized profit and loss to determine if ICC’s intraday exposure to each

CP is covered by the margin on deposit. ICC may issue margin calls to CPs that exhibit insufficient levels of risk collateralization to protect ICC and its CPs. If an additional margin call is made, the CP has one hour to fully collateralize any deficits associated with the additional margin call.

ICC's source for price data includes automated data feeds and ICC's internal price discovery process. ICC's internal price discovery process provides reliable, market-driven prices for ICC cleared instruments, including single name, index, and Index Swaption instruments. The process uses CP submissions which are provided within a specific period, or submissions window, to determine prices of specific instruments. ICC maintains a submissions window for ACPs to submit prices for North American CDS products as of the end of the London trading day, rather than the end of the New York trading day, to facilitate participation by institutions that may not have the global resources to submit prices near the end of North American trading hours (as is required for other CPs). At least once per day, CPs submit prices for specific instruments related to their open positions at ICC. Any intraday quotes are automatically entered into the ICC risk management application which immediately revalues CP portfolios based on the data. Prices determined by ICC on a daily basis are provided to CPs. The resulting prices are reviewed by the ICC Risk Department and used for risk management purposes.

ICC offers portfolio margining relief with respect to clearing member house/proprietary transactions. Pursuant to CFTC and SEC Orders, ICC provides similar relief for CPs that maintain clearing accounts for customer-related transactions.

ICC's portfolio margining allows market participants to save capital by clearing highly correlated index and single name CDS in a single account. By combining the positions in one account and applying ICC's portfolio margining methodology, ICC provides capital efficiencies while maintaining strong risk management practices.

ICC conducts back testing to review the adequacy of margin requirements. The historical data used to calibrate ICC's models begins on April 1, 2007 and includes extreme market events such as the Bear Stearns and Lehman Brothers defaults, the U.S. "Flash Crash" event, the European Sovereign Debt Crisis, and the Coronavirus (COVID-19) pandemic.

ICC's back testing consists of verifying that the number of actual losses is consistent with the number of projected losses. On a daily basis, ICC's back testing process provides account-based information about the number and amount of losses that would exceed the previous-day and previous-period risk estimates. The IM model is calibrated by evaluating the number of actual losses against the number of predicted losses to identify exceptions. The total number of exceptions is evaluated and the model is considered well calibrated if the number of exceptions is consistent and meets an established single-tailed confidence level of at least 99%. If the model calibration consistently demonstrates exceptions, the ICC Risk Department reviews the models and recommends revisions to the ICC Board following consultation with the risk function at CPs and ICC Risk Committee.

Sensitivity tests are performed at least monthly and are designed to test the key parameters and assumptions of the IM model at a number of confidence intervals.

	<p>Consideration is given to the term structure of the risk factors and the assumed correlation between risk factors. Actual CP positions and hypothetical portfolios are analyzed in order to evaluate potential changes in margin and subsequent losses that may arise.</p> <p>Risk models are independently validated by a third party that has had no involvement in the model development process. All models are independently validated at least every twelve months ensuring the model is sound theoretically and the model operates as designed and expected. In addition, all material model changes (i.e., those change that may substantially affect the systems assessment of risk) are independently validated prior to implementation.</p>
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Principle 7: Liquidity risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Summary narrative

ICC measures, monitors, and manages its liquidity requirements and resources through its liquidity management program. Such program is designed to ensure that ICC has sufficient liquid resources to meet all of its payment obligations with a high degree of confidence.

In order to manage its liquidity for daily settlement payments, ICC requires CPs to make margin deposits and GF contributions pursuant to collateral thresholds (set forth in the ICC Rules) which establish tiers of assets based on estimated time-to-liquidity risk horizons. Such liquidity tiers are designed to provide ICC with sufficient liquidity to manage its settlement payments in the event of a CP default. As an example, non-client IM and GF liquidity requirements for U.S. Dollar denominated products are as follows.

Asset Type	Minimum Percentage of Requirement*
US Dollar Cash	45%
US Dollar Denominated Assets (US Cash and/or US Treasuries)	+ 20% (for a total 65%)
All Eligible Collateral (US Cash, Euro cash, and/or US Treasuries)	+ 35% (for a total of 100%)

* Subject to GF minimum requirement of \$20 MM being 100% in US Cash

ICC monitors compliance with the collateral threshold liquidity tiers and any CP that does not maintain the appropriate minimums by asset type (regardless of whether the aggregate collateral meets their margin and GF requirements) will be called to make the necessary adjustments. In addition, ICC requires CPs to meet and maintain a minimum GF contribution of \$20 million in U.S. Dollar cash.

ICC’s liquidity management program includes stress testing of liquidity requirements to meet intraday, same-day, and multiday settlement obligations under extreme but plausible market conditions. Such stress scenarios include, without limitation, the default of the two CP affiliate groups that would generate the largest aggregate liquidity obligation for ICC, separately and in combination with the worst-case temporary loss of access to cash at one service provider at which ICC maintains cash deposits or investments based on the observed diversification of deposits and investments. ICC monitors its liquidity resources to ensure they are sufficient to cover the liquidity requirements identified under the stress test scenarios in the relevant currency of the payment obligations. Liquidity stress testing results are reviewed daily by the Risk Management Department and weekly by the ICC Risk Committee. On at least a monthly basis, ICC performs a comprehensive and thorough analysis of liquidity stress testing scenarios, models, and underlying parameter assumptions to ensure they remain appropriate. Such analysis is performed more frequently when the products

cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by ICC's CPs increase significantly.

ICC's qualifying liquidity resources include cash held at the Federal Reserve Bank of Chicago and at creditworthy commercial banks, committed repurchase facilities, and committed FX facilities. With the exception of GBP cash held for customer-origin IM requirements, ICC holds cash in the currency of the requisite obligations (USD/EURO) including cash in the ICC GF, providing significant liquidity to the clearing house, if needed. With the respect to U.S. Dollar collateral posted by CPs, to the extent available, ICC holds such cash at its accounts with the Federal Reserve Bank of Chicago. ICC has two cash accounts with the Federal Reserve Bank of Chicago, one for house origin U.S. Dollar cash and a separate account for customer-origin U.S. Dollar cash. ICC does not have access to routine overnight credit at a central bank. ICC holds U.S. Treasury securities which are readily available and convertible into cash pursuant to committed repurchase agreements and other prearranged and highly reliable funding arrangements. Such arrangements allow ICC to quickly sell U.S. Treasury securities held as collateral and receive the cash proceeds from such sales on a same day basis. Further, ICC has established a committed FX facility which provides for same day settled spot FX transactions. The facility allows ICC to convert available U.S. Dollar cash into Euro to meet a Euro liquidity need.

Under its liquidity risk management framework, ICC will use all available resources to meet its liquidity needs when managing a liquidity event, caused by a CP default or otherwise. ICC has implemented a liquidity waterfall which defines the order, to the extent practicable, in which ICC would use its available liquidity resources to meet its payment obligations by the relevant payout deadlines. The liquidity waterfall classifies available liquidity resources on any given day into four levels: (i) house-origin IM and GF cash deposits of each defaulting CP; (ii) GF cash deposits of ICC and non-defaulting CPs; (iii) house-origin IM cash deposits of non-defaulting CPs; and (iv) committed repurchase and committed FX facilities.

ICC monitors funding flows through ECS, ICC's collateral management system. The primary features of ECS, include: real time update of positions; overnight MTM valuation; hard limits on type and concentration of permitted collateral; separate review and approval of collateral change requests initiated by CPs; and automatic confirmation checks to ensure that changes in collateral will not negatively impact ICC's liquidity exposures.

ICC monitors the credit quality and financial health of its financial service providers (see Principle 9). In addition, ICC monitors its liquidity providers based on international liquidity standards introduced by the Basel Committee on Banking Supervision. Such standards are designed to measure a banking organization's ability to withstand liquidity shocks arising from distressed market and economic conditions. Furthermore, ICC periodically tests its procedures for accessing its liquidity arrangements, including its ability to convert U.S. Treasury securities held as collateral into cash proceeds pursuant to its committed repurchase facility, and its ability to convert U.S. Dollars into Euro pursuant to its committed FX facility.

	A full independent validation of ICC's liquidity risk model is performed at least once every twelve months.
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Principle 8: Settlement finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Summary narrative

ICC provides clear and certain final settlement in real time.

ICC uses a direct settlement model to manage daily settlements (see Principle 9). Cash settlement is relevant for the payment of IM and MTM margin as well as trade payments (e.g., upfront fees, coupons and cash settlement of credit events) and required GF contributions. Pursuant to such legal agreements, settlement fund transfers are irrevocable and unconditional when ICC’s account at the settlement bank is debited or credited (subject to certain provisions for corrections of errors). Furthermore, ICC has obtained a legal opinion that supports the characterization of transfers of MTM Margin as settlement payments rather than as pledges of collateral.

Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Summary narrative

ICC conducts its money settlements through approved commercial banks. The financial institutions that ICC uses for settlement and custody are among the largest financial institutions in the world. They are reputable organizations that employ accounting practices, safekeeping procedures and internal controls designed to protect deposits. ICC endeavors to maintain banking relationships with highly creditworthy and reliable banking institutions that provide operational and strategic support with respect to holding CP margin and GF cash and collateral. Banks must meet certain standards in order to be considered. A review of a bank’s capitalization, creditworthiness, access to liquidity, operational reliability and supervision is performed prior to accepting services. ICC uses its accounts at the Federal Reserve Bank of Chicago as depository accounts. All money settlements flow through ICC’s commercial bank accounts. ICC moves cash between its commercial bank accounts and its accounts at the Federal Reserve Bank of Chicago based on the net payment flows.

ICC monitors operational performance of each settlement bank on a daily basis. In addition, ICC monitors the financial health of the financial institutions in which it holds its settlement and custodial accounts. The financial condition of each settlement bank is monitored on an on-going basis, with an emphasis on measures related to liquidity and cash management. Monitoring is conducted by the ICC Treasury Department and the ICC Risk Department and periodically reported to the ICC Credit Review Subcommittee (“CRS”). The CRS is a multi-disciplinary committee made up of ICC staff that, among other tasks, monitors settlement banks. The CRS meets monthly.

ICC also utilizes an internal rating system to monitor and evaluate settlement banks. The rating system is used to generate an internal rating for each settlement bank, based on a combination of financial data, market data and an overall qualitative assessment of the settlement bank’s financial condition and market standing. Internal ratings may influence ICC’s view of the settlement bank’s risk level.

ICC’s legal agreements with its settlement banks ensure that all settlements are final when effected. Pursuant to such legal agreements, settlement fund transfers are irrevocable and unconditional when ICC’s account at the settlement bank is debited or credited (subject to certain provisions for corrections of errors).

Principle 10: Physical deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

Summary narrative

Physical delivery is applicable for CDS contracts cleared by ICC where the method of settlement for certain credit events under the CDS contract calls for physical settlement. ICC conducts physical settlements pursuant to Chapter 22 of the ICC Rules. Under the ICC Rules, ICC will match buyers and sellers under a physically settled contract and facilitate the physical settlement process between buyers and sellers. ICC guarantees the financial performance of physical settlement. Index Swaptions are physically settled (i.e., the swaption, upon exercise, will result in the parties entering into an index credit default swap position on the specified terms) in accordance with Subchapter 26R of the ICC Rules and not, for the avoidance of doubt, the physical settlement rules in Chapter 22, which may apply to the settlement of the underlying contract but not to the settlement of the Index Swaption.

Principle 12: Exchange-of-value settlement systems

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

Summary narrative

ICC does not settle any cleared transaction using exchange-of-value settlement.

Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Summary narrative

ICC has effective and clearly defined rules and procedures designed to manage a CP default. ICC’s Rules and procedures are designed to ensure that ICC can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

The ICC Rules define the circumstances for declaration of a CP default, including a CP’s failure to meet payment obligations to ICC. The ICC Rules and procedures provide for the management of a CP default. As each financial emergency or default is unique, the ICC Rules and procedures provide ICC with a certain level of authority and flexibility in how to best implement the default procedures.

In general, the ICC default management and recovery procedures include: (i) declaring a CP in default; (ii) communicating the default; (iii) activating the CDS Default Committee (seconded traders); (iv) conducting portfolio splitting, hedging, and possible direct liquidation; (v) conducting auction(s) pursuant to auction procedures; (vi) implementing reduced gains distribution (aka variation margin gains haircutting); and (vii) conducting a partial tear-up of positions. Such procedures also contain details regarding the default management roles and responsibilities of the ICC Board, ICC management and personnel, and relevant committees.

Following a default declaration, ICC will activate the CDS Default Committee. The CDS Default Committee is comprised of representatives from three CDS Committee-Eligible Participants. The CDS Default Committee acts as seconded traders with responsibility for assisting ICC with default management, including the execution of hedging and liquidation transactions. ICC will consult with the CDS Default Committee, to the extent practicable, with respect to establishing the terms for default auctions and secondary auctions (including defining different lots for default auctions) and determining whether to conduct such auctions. Seconded committee members are required to act in the best interests of ICC.

In the event the defaulting CP has customer related positions, ICC may transfer customer positions from the defaulting CP to a non-defaulting CP, to the extent permitted by law and in all cases subject to agreement from the receiving CP.

If necessary to cover losses from a CP default, ICC’s default resources will be consumed in the following order: (i) defaulting customer margin, if customer defaults; (ii) defaulting CP’s IM; (iii) defaulting CP’s GF; (iv) SWWR GF component (only if the defaulting CP contributes to the SWWR GF component); (v) ICC priority GF contribution and ICC pro rata GF contribution (aggregate \$50 million); (vi) ICC CP Default Insurance; (vii) non-defaulting CP’s GF contributions; and (viii) assessment of CPs.

In the event of any use of the GF contributions of non-defaulting CPs, upon notice from ICC, the non-defaulting CPs are required to contribute additional amounts to the GF to “replenish” their GF contribution to the required level through replenishment

contributions. In addition, in the event that the GF has been depleted or ICC anticipates the need for additional funds related to a default, under the ICC Rules, ICC may call for assessment contributions, which CPs are obligated to meet by providing additional funds to the GF. The ICC Rules include a “cooling-off period” concept. A “cooling-off period” is triggered by a call for assessment contributions or by sequential GF depletion within a 30 calendar day period. Liability of CPs for assessment contributions as a result of a CP default (or defaults) that triggered the cooling-off period is capped at “1x” the required GF contribution per default. In addition, the total amount of replenishment and assessment contributions during the cooling-off period cannot exceed three times the required GF contribution, regardless of the number of defaults during the period. The foregoing caps are based on a CP’s individual required GF contribution immediately prior to the default that triggered the cooling-off period. Should the cap on the additional GF contributions be reached, CPs also may be required to provide additional IM during the period, which will facilitate ICC’s ability to continue to satisfy its regulatory financial resources requirements. The ICC Risk Department calculates the amount of additional IM required under such circumstances based on stress testing analysis on the positions of CPs and their respective clients.

To the extent that the default resources of non-defaulting CPs are ever used, ICC will have a claim under the CP Default Insurance, in an amount up to \$75 million. The CP Default Insurance provides additional default resources to cover losses from CP defaults, prior to the need to use GF resources from non-defaulting CPs. ICC may use the contributions of non-defaulting CPs to the GF (and assessments on such CPs) prior to the receipt of proceeds owed under the CP Default Insurance, and those CPs will be reimbursed from the insurance proceeds when received.



ICC has various recovery tools available to resolve a CP default and to return to a matched book. As part of the auction process, ICC uses its automated DMS to set the specifications for an auction and communicate information to and receive information from auction participants with respect to an auction. ICC may run one or more initial default auctions with respect to the remaining portfolio of the defaulting CP (together with any hedging, or initial cover, transactions previously entered into by ICC to manage the risk of the portfolio). CPs will have an obligation to bid for each lot in a minimum amount determined by ICC and have the option of submitting All or Nothing Bids; Non-CPs may bid in the auction indirectly through a CP. As an incentive for bidding competitively on both size and price, should an All or Nothing Bid be a winning bid, 100% of the auction portfolio is awarded to the All or Nothing Bidder without the award being split amongst any more competitively priced standard bids. In addition, Non-CPs have the option to bid directly in the auction, provided that (i) a CP has confirmed that it will clear any resulting transactions of the Non-CP; (ii) the Non-CP makes a minimum deposit of U.S. \$10 million which may be applied by ICC in the same manner as CP GF contributions (e.g., subject to “juniorization” as described below); and (iii) the Non-CP has entered into an agreement with ICC pursuant to which it agrees to the auction terms and confidentiality requirements in the same manner as they apply to CPs.

Pursuant to the default auction procedures, and in consultation with the CDS default committee, ICC may break the portfolio into one or more lots, each of which will be auctioned separately. The auction for each lot will be conducted as a modified Dutch auction, with all winning bidders paying or receiving the auction clearing price. All available default resources (both pre-funded resources and assessment contributions) may be used to pay the cost of an initial default auction. GF and assessment contributions of non-defaulting CPs are subject to “juniorization” and will be applied using a defined default auction priority based on the competitiveness of their bids. Such design provides CPs with a strong incentive to bid competitively in the default auction, with the goal of reaching an efficient auction clearing price that permits ICC to close out the defaulter’s portfolio and return ICC to a matched book.

If the initial default auctions are not fully successful in closing out the defaulting CP’s portfolio, ICC may re-run such auction(s) with respect to the defaulter’s remaining portfolio. All auctions will be conducted in accordance with the ICC Rules and relevant auction procedures.

Should the initial default auction fail to close out the entirety of the defaulting CP’s portfolio, ICC may, in connection with other default management steps, implement reduced gain distributions following the exhaustion of all default resources, for up to five consecutive business days. Reduced gain distribution will allow ICC to reduce payment of variation, or MTM, gains that would otherwise be owed to CPs, as it attempts a secondary auction or conducts a partial tear-up.

ICC may conduct secondary default auctions in conjunction with reduced gain distributions. A secondary auction for a lot will be deemed successful if it results in a price for the lot that is within ICC’s remaining default resources (if any). If the secondary auction(s) of a defaulting CP’s positions is not successful, ICC will proceed to a partial tear-up of positions of non-defaulting CPs corresponding to the defaulting CP’s remaining portfolio. In a partial tear-up, ICC will terminate positions of non-defaulting CPs that exactly offset those in the defaulting CP’s remaining portfolio (“Tear-Up Positions”). ICC will terminate Tear-Up Positions across both the house and customer origin accounts of all non-defaulting CPs that have such positions, on a pro rata basis. ICC will determine the termination price for all Tear-Up Positions based on the last established MTM price. Tear-up will occur contemporaneously with the determination of such price, such that the termination price will equal the current MTM value as determined pursuant to ICC end-of-day settlement price procedures.

ICC’s default rules and procedures have been approved by the ICC Board; any material changes are reviewed by the ICC Risk Committee and approved by the ICC Board. Additionally, ICC publicly discloses key aspects of its default procedures on its website, including the default management rules and procedures contained in the ICC Rules, the Default Auction Procedures—Initial Default Auctions (“Initial Default Auction Procedures”), and the Secondary Auction Procedures.

ICC conducts testing of its default procedures and recovery/wind-down tools at least annually, including participation by CPs. During such testing exercises, ICC verifies that all CPs, clients (where applicable), and other relevant parties including, without limitation, interoperable clearing houses and any related service providers, are duly

	<p>informed and know the procedures involved in a default scenario. Following each exercise, ICC reviews whether the default test procedures are adequate and, where necessary, amends the procedures. Results are communicated to the test participants, the ICC Risk Committee, the ICC Board and to applicable regulators.</p>
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Principle 14: Segregation and portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant’s customers and the collateral provided to the CCP with respect to those positions.

Summary narrative

ICC maintains rules and procedures that enable the segregation and portability of positions of a CP’s customers and the collateral provided to ICC with respect to those positions.

ICC segregates customer funds pursuant to the “legally segregated, operationally commingled” (“LSOC”) model under Part 22 of the CFTC Regulations which requires that ICC does not use the collateral of one customer to fulfill the obligations of another customer. The CFTC Part 22 regulations include detailed requirements addressing custody, segregation and investment of customer margin provided in respect of cleared swaps. These requirements are replicated in the ICC Rules.

LSOC prohibits ICC from using customer collateral (at ICC this collateral is margin) provided by non-defaulting customers of a failed CP to cover losses on positions of a defaulting customer of the failed CP. In this way, LSOC is intended to mitigate “fellow customer risk” in the event of a shortfall in customer assets following a CP failure. If a customer defaults, ICC can apply CP funds and the assets of the defaulting customer to cover the default-related losses. ICC does not use any funds from non-defaulting customers to cover the losses from a defaulting customer. In addition, customer funds cannot be used to cover losses arising from a CP default. ICC’s books and records track each customer’s cleared swaps and the associated collateral. Operationally, ICC holds all customer collateral in one omnibus account. ICC collects IM on a gross basis for each CP’s customer account equal to the sum of the margin required by ICC for each individual customer within that account.

Customer funds deposited by ICC at a bank are held under an account name that clearly identifies the funds as belonging to the CP’s customers. ICC obtains and retains a written acknowledgement from each settlement bank stating that the segregated funds deposited by ICC belong to CPs’ customers and are held in accordance with the CEA.

The ICC Rules permit the transfer or porting of customer positions. Pursuant to ICC Rules, each CP (other than a Defaulting CP) that carries customer positions is required, upon request of the customer for whom such positions are carried, to transfer or novate, as the case may be, such customer’s positions to one or more other CPs designated by the customer. Such transfer or novation does not require the consent of the transferor CP, but is subject to: the consent of the transferee CP; satisfaction by the customer of any margin requirements imposed by the transferor CP on any positions remaining at the transferor CP; and the completion of all required transfer documentation. In addition, in accordance with ICC Rules, ICC may permit post-default portability when necessary and to the extent feasible.

Principle 15: General business risk

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Summary narrative

ICC identifies monitors and manages its general business risks and holds sufficient liquid net assets, funded by equity, to cover general business losses so that it can continue operations and services as a going concern if these losses materialize. As part of wider risk management processes, ICC has established a number of mechanisms and metrics to monitor and manage clearing business, operational, regulatory and financial risks. Furthermore, ICC’s liquid net assets are at all times sufficient to ensure a recovery or orderly wind-down of critical operations and services.

ICC has robust management and control systems through governance, enterprise risk management, financial statements and internal audit to ensure that ICC identifies and is aware of general business risk. The ICC limited liability company operating agreement and the ICC Rules provide for recovery and wind-down following the insolvency of a CP, a business decision of ICC to exit clearing services, the insolvency of ICC, and other business losses.

As a CFTC registered DCO designated as systemically important under Title VIII of the Dodd-Frank Act, ICC complies with CFTC Regulation 39.39(b)(2), which requires that ICC have plans for recovery or orderly wind-down necessitated by general business risk, operational risk or any other risk that threatens its viability as a going concern. ICC’s Rules define three exclusive categories of relevant losses (i.e., investment losses, custodial losses, and non-default losses) and provide a mechanism for allocating investment losses and custodial losses as between ICC and CPs, with ICC being responsible for a first loss position up to the amount of defined resources (except in certain cases of a central bank failure) and with CPs being responsible for the remaining loss, in proportion to their margin and GF contributions. Specifically, to provide first loss coverage, ICC has designated \$32 million of its own assets as available to be applied to custodial losses and \$20 million of its own assets as available to be applied to investment losses. For non-default losses that are neither investment losses nor custodial losses, ICC is solely responsible for covering such losses through ICC capital and other ICC resources. Such rules promote ICC’s ability to continue its operations as a going concern in the event that it incurs a significant loss event not resulting from a CP default, which may include investment losses and custodial losses with respect to margin and GF contributions, as well as other losses resulting from general business risk, operational risk or other non-default scenarios.

Also, as a CFTC registered DCO, ICC complies with CFTC Regulation 39.11(a)(2) which imposes a regulatory capital requirement on ICC equal to ICC’s projected 12 months operating expenses calculated on a rolling basis. In addition, ICC on a voluntary basis, calculates what its regulatory capital requirement would be if ICC was subject to EU based clearing house requirements.¹² It is ICC’s policy to maintain regulatory capital in an amount at least equal to the higher of the CFTC requirement

¹² Such EU regulatory capital requirements are defined by EMIR under EU Regulation 153/2013.

and the EU requirement. Currently the EU regulatory capital calculation methodology results in a higher requirement than the CFTC calculation, therefore ICC maintains materially more regulatory capital than its projected 12 months operating expenses. The EU regulatory capital calculation methodology includes specific provisions for business risk and restructuring/wind-down costs with a minimum capital requirement equal to three months and six months of operating expenses for each, respectively. The resulting liquid net assets held by ICC to comply with its regulatory capital policy and related regulations, would enable ICC to continue its operations as a going concern in the event it incurs a general business loss, or would enable ICC to complete the steps necessary to implement its recovery plan and/or its wind-down plan, as appropriate.

ICC's regulatory capital assets are sufficient to support its operations during any recovery or wind-down process. Specifically, ICC believes execution of its recovery plan would take no longer than three months and an orderly wind-down of its business would take no longer than six months. ICC maintains financial resources materially in excess of twelve months of operating costs. ICC's regulatory capital assets are unencumbered, liquid financial assets (i.e. cash and/or highly liquid securities).

ICC monitors its capital resources against regulatory capital requirements. Should there be a need for additional capital to meet its requirements, ICC's Board approved recovery plan includes options for raising additional financial resources. Such options include, without limitation, a potential capital injection from ICC's parent company.

Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Summary narrative

ICC safeguards its own and its CPs' assets to minimize the risk of loss on and delay in access to these assets. ICC's investments are in instruments with minimal credit, market and liquidity risks.

ICC safeguards its own and its CPs' assets through the use of approved settlement banks, custodians and other financial service providers that were chosen based on their ability to provide the services required by ICC, creditworthiness, relevant experience and operational stability. The financial institutions that ICC uses for settlement and custody are among the largest financial institutions in the world. ICC conducts due diligence reviews to assess whether its settlement banks and custodians employ adequate accounting practices, safekeeping procedures and internal controls that protect deposits, ensure full segregation and protection of financial instruments and allow ICC prompt access to assets when required. In addition, ICC monitors the financial health of the financial institutions in which it holds its settlement and custodial accounts as discussed under Principle 9. The legal agreements ICC has in place with its settlement banks and custodians have been reviewed by external legal counsel.

CP collateral posted with ICC is limited to U.S. Dollar, Euro or GBP cash and U.S. Treasury securities, all of which has minimal credit, market and liquidity risk. ICC uses MTM valuations and haircuts to minimize the risk of loss or delay in access to these assets. Further details regarding collateral can be found under Principle 5.

With respect to U.S. Dollar collateral posted by CPs, to the fullest extent available, ICC holds such cash at its accounts with the Federal Reserve Bank of Chicago. ICC has two cash accounts with the Federal Reserve Bank of Chicago, one for house origin U.S. Dollar cash and a separate account for customer-origin U.S. Dollar cash. To the extent U.S. Dollar cash posted by CPs cannot be held at the Federal Reserve Bank of Chicago, ICC's investment policy provides that such U.S. Dollar cash may be held in a bank deposit at a commercial bank or invested pursuant to reverse repurchase agreements backed by U.S. Treasury securities and those governmental agency securities with an explicit full faith and credit guarantee of the U.S. Government. To the extent bank deposits or such reverse repurchase agreement transactions become unavailable, ICC may make direct investments in U.S. Treasury securities with a final maturity of no greater than 98 days.

Euro collateral posted by CPs with respect to house origin and customer origin cash is either held in a bank deposit at a commercial bank or may be invested pursuant to reverse repurchase agreements backed by certain Euro sovereign debt with low risk of default and high liquidity. To the extent such reverse repurchase agreement transactions become unavailable, ICC may make direct investments in such Euro sovereign debt instruments. Such investment activity may be executed by ICC directly, or through engagement with third party investment managers. ICC's investment of Euro-denominated customer origin cash is executed in compliance with CFTC Regulation 1.25 including any applicable exemptive orders and including, without

	<p>limitation, the conditions in CFTC Regulation 1.25 related to the investment of client origin cash in foreign sovereign debt.</p> <p>GBP cash collateral posted by CPs (customer origin IM only) is held in a bank deposit at a commercial bank.</p> <p>With respect to the investment of ICC's operating and capital funds, the primary objectives of ICC's investment activities are:</p> <ul style="list-style-type: none">• Safeguard the principal (safety);• Provide sufficient liquidity to meet all operational requirements (liquidity);• Obtain a reasonable rate of return (yield); and• Conform to legal and regulatory requirements (legal). <p>ICC's investment strategy is consistent with ICC's overall risk management strategy by limiting investments to investments that feature high credit quality, high liquidity and low price volatility. ICC restricts its investment of ICC operating and capital funds to: bank deposits; repurchase agreements backed by U.S. Treasury securities and those governmental agency securities with an explicit full faith and credit guarantee of the U.S. Government or such securities; and direct investments in U.S. Treasury securities with a final maturity of no greater than 98 days.</p> <p>ICC's investment policies are subject to review by the ICC Risk Committee and ICC Board, and any modifications to the policies require ICC Board approval.</p> <p>ICC is aware that, despite the protections under the aforementioned policies and procedures, ICC faces the remote scenario where there is a failure by an investment issuer or counterparty or custodian. As described above in Principle 15, ICC's Rules provides a mechanism for allocating investment losses and custodial losses as between ICC and CPs to enable ICC to manage custody and investment risk and settlement bank risk in the remote circumstances where a custodian, investment counterparty or settlement bank fails.</p>
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Principle 17: Operational risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfillment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Summary narrative

ICC identifies plausible sources of operational risk, both internal and external, and mitigates their impact through the use of appropriate systems, policies, procedures and controls. ICC's systems are designed to ensure a high degree of security and operational reliability and have adequate, scalable capacity. ICC's business continuity management aims for the timely recovery of operations and the fulfillment of ICC's obligations, including in the event of a wide-scale or major disruption.

ICC's operational risk program (which incorporates the ICE, Inc. Enterprise Risk Management Department) addresses the risk that a reduction, deterioration or breakdown of services will occur from deficiencies in systems, processes, personnel, or from disruptions related to external events. The principle components of the operational risk program are operational performance standard setting and monitoring, and risk identification, assessment and mitigation. Material changes to the ICC operational risk management program require review by the ICC Risk Committee and approval by the ICC Board. The ICC Risk Committee and the ICC Board review the program on at least an annual basis.

ICC performs comprehensive operational performance standard setting and monitoring. The purpose of operational performance standard setting and monitoring is to establish clearly defined operational reliability objectives that serve as benchmarks to evaluate efficiency and effectiveness, promote confidence among participants and evaluate performance against expectations. ICC reports breaches to regulatory organizations, as required, and to the ICC Audit Committee on a quarterly basis. Regular monitoring is performed to determine whether systems meet established objectives and service-level targets. Performance standards are reviewed on at least an annual basis and are established by a working group of ICC management and reviewed by the ICC Board.

ICC has a risk-based assessment methodology, which identifies comprehensive "what could go wrong" scenarios surrounding each major clearing process (i.e. new trade intake, position management, risk and pricing, and treasury). A working group of ICC management determines the risks. Each risk is assigned a risk rating, and associated controls and mitigations to prevent the risk from materializing are documented and rated. Typical safeguards include procedures and programs to ensure adequate expertise, training and supervision of personnel. Additionally internal control testing and monitoring is in place to ensure the effectiveness of the documented safeguards.

At the conclusion of the risk assessment process, recommendations to increase control effectiveness are made where residual risk could be further mitigated. Control improvements are documented and prioritized by ICC management.

The Information Technology (“IT”) team is responsible for defining and delivering IT (i.e., application development, operations and infrastructure) projects that are essential to the current and future ICC business objectives. IT Management has a methodology that addresses the processes required to define and deliver IT projects and provides a structured, yet streamlined, approach to delivering IT projects. The project delivery methodology combines project management best practices, change management, project milestones development and well-defined project roles and responsibilities to assist in the delivery of successful IT initiatives. The Quality Assurance team tests ICC’s systems as part of the project delivery methodology to ensure reliability and adequate capacity.

ICC has a robust information security program and maintains effective and current policies and procedures to ensure employee compliance. ICC’s information security program includes: asset management; physical and environmental security; authorization, authentication and access control management; internet, e-mail and data policy management, record retention management; and accountability, compliance and auditability. ICC performs network scans and penetration tests regularly to ensure the information security systems are performing as designed.

ICC has a comprehensive business continuity and disaster recovery program that supports the continued performance of critical functions in the event ICC’s headquarters or primary data center is unavailable due to significant business interruption. The business continuity/disaster recovery program has six objectives: (i) ensure continuity and recovery of critical functions through its secondary/disaster recovery facility; (ii) minimize the disruption to clients and business partners; (iii) protect the firm’s books and records; (iv) reduce the number and frequency of ad hoc decisions following a significant business interruption; (v) educate employees about contingency plans and roles and responsibilities in executing the plans; and (vi) comply with regulatory requirements.

As part of the business continuity and disaster recovery program, ICC maintains a detailed Business Continuity Plan (“BCP”). The BCP outlines ICC’s strategy to resume clearing operations within two hours following: (i) loss of key personnel or reduction of available staff; (ii) loss of primary work facility; (iii) loss of primary data center; and (iv) a widescale disruption affecting staff, data and facilities. ICC conducts regular BCP and disaster recovery testing and requires CP participation at least annually.

Principle 18: Access and participation requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

Summary narrative

ICC maintains objective, risk-based and publicly disclosed criteria for participation, which permits fair and open access.

The membership requirements of ICC are publicly disclosed in the ICC Rules and are designed to permit fair and open access, while protecting ICC and its CPs. ICC has two categories of CPs. CPs can become Full Participants or ACPs, the difference being certain terms and conditions applicable to ACPs that are designed to facilitate participation by institutions that may not have the global resources to provide price submissions for North American instruments near the end of North American trading hours (as is required for Full Participants). In general, Full Participants and ACPs have the same rights, responsibilities, and obligations, with certain exceptions for ACPs set out in Rule 212.

The membership requirements are the same for all applicants and include fitness criteria, financial standards, operational standards and appropriate registration qualifications with applicable statutory regulatory authorities. ICC applies a due diligence process to ensure that all applicants meet the required criteria and conducts on-going monitoring of CPs. If ICC determines a CP is in danger of not meeting the requirements or otherwise poses an unacceptable level of risk to ICC or other CPs, ICC may take action to limit ICC’s exposure, including an increase in IM requirements, reduction of CP positions, or reduction of the concentration thresholds applicable to the CP.

All ICC CPs are subject to the membership requirements summarized below. An applicant, at the time of admission and on an ongoing basis, must:

- be regulated for capital adequacy by a competent regulatory authority
- have a minimum of \$50 million of Adjusted Net Capital
- satisfy the internal credit criteria, as confirmed by examination of its books and records
- make GF contributions and provide margin as required by the ICC Rules
- demonstrate operational capacity including processing capacity, pricing submissions and back-office facilities with adequate systems
- demonstrate risk management competence
- establish relationships with an approved settlement bank for all payments
- establish relationships with swap data repositories, as necessary
- provide in a timely manner all reports and information as required by ICC
- be organized in a jurisdiction with insolvency laws acceptable to ICC
- not be subject to statutory disqualification under CFTC or SEC rules
- participate in default management simulations, new technology testing and other exercises, as notified by ICC from time to time

The ICC Participant Review Committee (“PRC”) is a multi-disciplinary committee comprised of ICC staff formed for the purpose of completing applicant due diligence, reviewing ICC’s participant requirements, and monitoring CP good standing on an

	<p>on-going basis. The PRC meets quarterly to execute these responsibilities. The PRC's recommendations are referred to the ICC Risk Committee for review and all recommendations are then proposed to the ICC Board for their approval. The ICC Rules authorize the ICC Board to suspend or revoke a CP's clearing privileges, or to terminate its CP status, under specified conditions.</p>
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Principle 19: Tiered participation arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Summary narrative

ICC’s CPs are direct participants with ICC; the CPs’ underlying clients are indirect participants with ICC. While ICC has legally binding agreements with its CPs, ICC has no legal agreements with CPs’ underlying clients. However, ICC continually evaluates and monitors the material risks posed by its indirect participants. ICC’s risk management program includes various elements designed to ensure the adequate identification, monitoring, and management of risks arising from and relating to indirect participants.

ICC is required to collect and maintain certain underlying client information sufficient to enable ICC to conduct risk management and to provide for segregation under the LSOC provisions as detailed under Principle 14. ICC identifies indirect participants that are responsible for significant proportions of transactions by monitoring the activity of its CPs and the activity of the CPs underlying clients. Such review provides visibility into the risk exposures of clients at each CP. Such reporting is monitored by the Risk Department on a daily basis and reviewed by the Risk Committee on a monthly basis. Further, the Risk Department, through its daily risk management processes including real-time monitoring of positions, continually monitors for potential risk presented by clients.

As discussed under Principle 18, ICC maintains membership requirements that include fitness criteria, financial standards, and operational standards. ICC applies a due diligence and on-going monitoring process to ensure that all CPs meet the requirements. Through this process, ICC reviews each CP’s customer account risk monitoring and controls.

Through its risk monitoring program, ICC is able to identify clients with high levels of risk exposure through their respective CPs. Such monitoring aides the Risk Department in managing potential risks arising from such client transactions related to the potential default of a client that disrupts or materially affects a CP. As discussed under Principle 18, if ICC determines that a CP presents an unacceptable level of risk to the clearing house, ICC may take action to mitigate such risk.

Principle 20: FMI links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

Summary narrative

ICC has in place procedures designed to identify, monitor, and manage risks related to any link ICC may establish. Such procedures ensure that, before entering into a link arrangement and on an ongoing basis once the link is established, ICC will manage all potential sources of risk arising from the arrangement. ICC currently does not offer inter-operability links with other CCPs or have links with any other FMIs and, therefore, Principle 20 is not applicable to ICC.

Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Summary narrative

ICC is efficient and effective in meeting the requirements of its participants and the markets it serves.

ICC is specifically designed to meet the needs of its users. As detailed under Principle 2, ICC’s robust governance structure provides a forum for ICC to receive feedback from multiple stakeholders. ICC values and incorporates input from market participants about various areas of its clearing service including workflows related to clearing and settlement, cleared products and technology development. In addition, ICC publicly posts rule change filings, financial resource disclosures, quantitative disclosures, and service and product changes on its website.

As discussed in detail under Principle 17, ICC has a program for operational performance standard setting and monitoring that establishes clearly defined operational reliability objectives that allow ICC to evaluate efficiency and effectiveness, promote confidence among CPs and evaluate performance against expectations. Detailed operational performance statistics are presented to the ICC Audit Committee on a quarterly basis and the ICC Board reviews a summary monthly. ICC continues to develop, maintain and provide safe and efficient clearing services to the CDS market.

Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Summary narrative

ICC uses relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement and recording.

ICC uses the widely accepted and internationally utilized Society for Worldwide Interbank Financial Telecommunication, commonly referred to as SWIFT, for messaging of payment transactions.

Principle 23: Disclosure of rules, key procedures, and market data

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

Summary narrative

ICC has clear and comprehensive rules and procedures that provide sufficient information to enable CPs to have an accurate understanding of the risks, fees and other material costs they incur at ICC. All relevant rules and key procedures are available to CPs. The ICC Rules and other pertinent information are publicly available on the ICC website.

ICC’s Rules clearly and comprehensively detail CP rights, obligations and risks and document the operation of ICC in general as well as under non-routine, though foreseeable events (e.g., CP default, arbitration proceedings and amendments in emergency situations). ICC’s Rules provide transparency surrounding non-default losses, such that CPs have greater certainty as to the consequences of such losses, their potential liability for them and the resources that would be available to support clearing operations. The ICC Exercise Procedures, which are also publicly available on the ICC website, provide further detail as to the manner in which Index Swaptions may be exercised by Swaption Buyers and the manner in which ICC will assign such exercises to Swaption Sellers and address situations where there are technical issues. In addition, ICC provides CPs with policies and procedures that provide further detail regarding ICC’s design and operations. As discussed under Principle 1, ICC has a robust governance process for any changes to the ICC Rules, inclusive of consultation with multiple stakeholders, public disclosure of all proposed changes and notification of material changes. ICC assures CP understanding of its rules and procedures through working groups and offers support through its full-service client services and support team that is available at all times. ICC offers support and training to address any lack of understanding of the ICC Rules or procedures by a CP.

ICC’s clearing fees are publicly available on the ICC website. Any changes to ICC’s fees would be submitted for regulatory approval in publicly available filings.

Key aspects of ICC’s default procedures are also publicly available on the ICC website, including the default management rules and procedures contained in the ICC Rules, the Initial Default Auction Procedures, and the Secondary Auction Procedures.

ICC most recently completed this Disclosure Framework on the date provided on the cover page. This Disclosure Framework is updated following material changes at ICC and, at a minimum, every two years. Publicly disclosed information is available on the ICC website, specific links follow in Section V. All publicly available information is provided in English.

V. List of publicly available resources

Relevant information pertaining to ICC can be found at www.ice.com. Hyperlinks to documents referenced within this Disclosure Framework are below.

[ICC Rules](#)

[ICC Rule Filings](#)

[ICC CP List](#)

[ICC Circulars](#)

[ICC Cleared Products List](#)

[ICC Clearing Data and Financial Resources](#)

[ICC Volume and Open Interest](#)

[ICC Daily Settlement Prices](#)

[ICC Margin Calculator](#)

[ICC CDS Collateral Management Presentation](#)

[ICC Clearing Fees](#)

[ICC Initial Default Auction Procedures](#)

[ICC Secondary Auction Procedures](#)

[ICC Exercise Procedures](#)