ICE Clear US, Inc.

Disclosure Framework
Responding institution:

ICE Clear US, Inc.

Jurisdiction in which the FMI operates:

United States

Authority regulating, supervising or overseeing the FMI:

U.S. Commodity Futures Trading Commission

The date of this disclosure is December 31, 2016. This disclosure can also be found at www.theice.com. For further information, please contact ICE Clear US, Inc. at iceclearus@theice.com or 312.836.6890. Capitalized terms not otherwise defined herein shall have the meanings set forth in the ICUS Rules.

Abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>Board</td>
<td>ICE Clear US Board of Directors</td>
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<tr>
<td>CCP</td>
<td>Central Counterparty</td>
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<tr>
<td>CEA</td>
<td>U.S. Commodity Exchange Act</td>
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<td>CM</td>
<td>Clearing Member of ICE Clear US</td>
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<td>CFTC</td>
<td>U.S. Commodity Futures Trading Commission</td>
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<td>DCO</td>
<td>Derivatives Clearing Organization</td>
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<td>ECS</td>
<td>Extensible Clearing System</td>
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<td>GF</td>
<td>Guaranty Fund</td>
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<td>ICE, Inc.</td>
<td>Intercontinental Exchange, Inc.</td>
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<td>ICUS or ICE Clear US</td>
<td>ICE Clear US, Inc.</td>
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<td>IFUS or ICE Futures U.S.</td>
<td>ICE Futures U.S., Inc.</td>
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<td>PTMS</td>
<td>Post Trade Management System</td>
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<tr>
<td>ICUS Rules</td>
<td>By-laws and rules of ICE Clear US</td>
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<tr>
<td>Settlement Banks or SBs</td>
<td>ICUS approved financial institutions, qualified financial institutions, depositories including settlement and custodian banks</td>
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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 US, Inc. ("ICUS") 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 Infrastructure” ("PFMIs") published in February 2012 and developed jointly by the Committee on Payment and Settlement Systems ("CPSS") and the Technical Committee of the International Organisation of Securities Commissions ("IOSCO"). No disclosure is provided with respect to Principles 11 and 24 as they do not apply to CCPs.

ICUS has been providing efficient and reliable clearing services for over 100 years for the futures and options contracts traded on ICE Futures U.S., Inc. ("IFUS"). ICUS was originally known as the New York Cotton Exchange Clearing Association Inc. It changed its name in 1962 to the Commodity Clearing Corporation and again in 1999 to the New York Clearing Corporation. In June 2007, the Intercontinental Exchange, Inc. ("ICE, Inc.") acquired both IFUS (formerly known as the New York Board of Trade) and ICUS (a wholly owned subsidiary of IFUS). ICUS is registered with the U.S. Commodity Futures Trading Commission ("CFTC") as a derivatives clearing organization ("DCO").

II. Summary of Major Changes Since the Last Update of the Disclosure

The initial version of ICUS’s Disclosure Framework was dated December 31, 2013. Since that date, the following major change has been made effective July 15, 2015:

ICUS has changed its default resources to increase its Priority Contribution from $25 million to $50 million to be applied prior to use of GF contributions and has removed its Pro Rata Contribution of $25 million that was to be applied on a pari passu basis with the GF contributions of non-defaulting CMs. See Principle 4 and Principle 13.

As part of its ongoing review of the Disclosure Framework, ICUS has made various non-major changes to this disclosure with the last update dated as of May 8, 2017.

III. General Background on the FMI

General Description of the FMI and the Markets it Serves

ICUS provides clearing services for derivatives contracts by (1) reconciling and clearing futures and options on futures transactions executed on IFUS, and (2) assuring the financial integrity of each transaction and resulting position. When a trade has been matched and accepted for clearing, ICUS is substituted as the counterparty to the trade, thereby guaranteeing financial performance of the contract to the Clearing Members ("CMs") on each side of the trade. ICUS CMs clear contracts for both their own house trading as well as customer transactions. A list of current CMs is available on the ICUS website.

ICUS maintains comprehensive by-laws, rules, policies and procedures ("ICUS Rules") designed to ensure the safety of CM capital and the certainty of financial performance to the marketplace. ICUS provides the following key functions:
Clearing  Establish appropriate clearing membership requirements and support effective and efficient operations

Settlement  Ensure contractual and financial obligations to CMs are met

Custody  Safeguard CM deposits by ensuring qualification of acceptable collateral and approved depositories and counterparties

ICUS utilizes clearing applications and technology owned and operated by itself and ICE, Inc. ICUS continuously monitors its clearing systems’ reliability and notes such systems availability is consistently at a rate of +99%.

ICUS provides clearing services for the agricultural, currency, metals, equity index, and credit index products traded on IFUS, a CFTC registered designated contract market. In particular, ICUS clears futures and options on futures for global benchmark contracts including Sugar No.11 & 16, Cotton No. 2, US Dollar Index, Russell Indexes, Coffee “C”, Cocoa, Frozen Concentrated Orange Juice, MSCI Indexes, and more than 60 currency pairs. As of December 31, 2016, ICUS clears transactions in approximately 132 instruments. Year to date through December 2016, ICUS has cleared approximately 285 million trades. Additional data regarding volume by product type and IFUS open interest is available on the ICUS website.

General Organization of the FMI

The ICUS Rules set forth the ICUS governance structure and provide for the ICUS Board and board designated committees (currently the ICUS Risk Committee). ICUS is a wholly-owned subsidiary of IFUS, which is ultimately owned by Intercontinental Exchange, Inc. (“ICE, Inc.”). ICE, Inc. is the leading global network of exchanges and clearing houses offering the broadest portfolio of services for trading, clearing and listings.

The ICUS Board of Directors is advised by the Risk Committee and ICUS management. ICUS senior management reports to the President. The ICUS Chief Risk Officer has an additional reporting line to the Chairperson of the ICUS Risk Committee, who is also a non-executive director on the ICUS Board. The organizational structure is illustrated below.
Legal and Regulatory Framework

ICUS was organized in 1915 as a New York business corporation and operates under New York law. ICUS is subject to supervision by the CFTC. 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. The CEA requires DCOs to comply 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. ICUS is subject to ongoing examination and inspection by the CFTC. ICUS has elected to be subject to, and complies with, Subpart C of Part 39 of the CFTC’s regulations which applies additional requirements on a DCO consistent with the international risk management standards set forth in the PFMIs.

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 monitors ICUS’s operations and receives from ICUS regular, as well as event specific, reports relating to, among other things, daily volume and open interest, quarterly financial and liquidity resources calculations, significant changes to the risk or financial profiles of ICUS and/or its CMs, default events, and determinations to transfer/liquidate positions. The CFTC conducts periodic on-site examinations of ICUS.

ICUS adheres to CFTC rules designed to meet the international standards set forth in the PFMIs, and accordingly retains its status as a Qualified Central Counterparty.

System Design and Operations

The ICUS clearing systems encompass a number of integrated systems, including most importantly, intra-day risk systems that continuously monitor risk exposure to ICUS, the Post
Trade Management System ("PTMS") and the Extensible Clearing System ("ECS"). PTMS provides real time trade processing services enabling CMs to offer real time risk management services. Within PTMS, if trades are marked for give-ups they go into the Allocation and Claim Transaction System where CMs can initiate allocations and monitor the status. Give-up transactions are recorded in the clearing system and reflected on the CM records and fed into the eGAINS system for billing.

ECS supports open and delivery position management, real-time trade and post trade accounting, collateral management, daily settlement and banking. ECS is a state-of-the-art system offering open, Internet-based connectivity and integration options for CM access to user and account management, position reporting and collateral management.

ICUS offers real-time trade confirmation of trades booked for clearing over standard FIXML formatted messages and supports a multitude of post trade management functions including trade corrections, trade adjustment, position transfers, average pricing and give-up processing. ICUS takes a proactive approach to enhancing the reliability, capacity and performance of its clearing systems.

The ICUS risk management systems calculate real time original margin and variation margin requirements of intra-day trade activity. The systems continuously receive cleared trades and market prices throughout the trading day and calculate risk and P&L in real-time for each CM. The systems issue visual and email alerts when defined thresholds are exceeded.

Payments as a result of the ICUS EOD margin cycle are due no later than 9:30 AM ET the following day, regardless of the time zone in which a member is located. Intra-day Variation settlement instructions are delivered to ICUS settlement banks ("SBs") and CMs receive e-mail notification of intra-day settlement amounts at approximately 9:30 AM ET and 1:30 PM ET and payments are due within an hour of the margin call being issued. By 6:30 PM ET, all trades have been accepted for clearing for the day and reports are issued by approximately 8:00 PM ET. By 10:00 PM ET, settlement instructions are delivered to ICUS SBs and clearing reports indicating the pay/collect settlement amounts are available to CMs.
**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.

<table>
<thead>
<tr>
<th>Summary narrative</th>
<th>ICUS has a well-founded, clear, transparent and enforceable legal basis for each aspect of its activities in all relevant jurisdictions.</th>
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<tr>
<td></td>
<td>ICUS is a New York business corporation in good standing. ICUS is governed by its certificate of incorporation and ICUS Rules (construed in accordance with New York law). Currently, ICUS is conducting business solely in the US. ICUS has been recognized by the European Securities and Markets Authority as a third country CCP in accordance with European Markets Infrastructure Regulation. On an ongoing basis, ICUS assesses and assures its compliance with all relevant regulations.</td>
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<td>Each ICUS CM is required to enter into a Clearing Member Agreement whereby it agrees to observe, comply with and be bound by all ICUS Rules. The ICUS Rules address the material aspects of ICUS’s activities and include: acceptance of trades, trade offsets, margin requirements, default, netting, guaranty fund, portability, physical settlement, and segregation.</td>
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<td>The ICUS Rules are publicly available on the ICUS website. As a CFTC-regulated DCO, ICUS files all changes to the ICUS Rules with the CFTC. Prior to filing with its regulators, the ICUS Risk Committee, if a risk related matter, will provide recommendations to the ICUS Board and the Board must provide approval of the rule change. This governance process allows multiple stakeholders to provide input and feedback regarding ICUS rule amendments.</td>
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<td>Parts 39 and 40 of the CFTC Regulations require changes to ICUS 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. The CFTC may notify a DCO that the proposed change is not consistent with the CEA or CFTC Regulations and may require action to comply with the law.</td>
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<td>In accordance with applicable regulation, ICUS posts all filings for changes to the ICUS Rules on the ICUS website. In addition, ICUS provides further guidance to CMs, when necessary, through notices or advisories, also posted to the ICUS website.</td>
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### 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.

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The ICUS governance structure is set forth in the ICUS Rules and provides that the Board has control and management of the affairs and business of ICUS and has all the powers and duties set forth in the Business Corporation Law of the State of New York. Ultimate responsibility for the operations of ICUS rests with the Board. The Board formulates or approves policy and oversees and directs the overall management of ICUS’s business by its officers. The Board may from time to time delegate authority to the Risk Committee (or such other Board level committees as may be established by the Board), ICUS officers or to others to act on behalf of ICUS.

The Board is comprised of: the president of ICUS, the president of IFUS, at least two “public” directors (in accordance with CFTC Reg. 39.32(c)(2)), and other qualified persons (each such other qualified person is referred to as a “director-at-large”), so as to constitute a Board of no fewer than five and no more than seven Directors. ICUS Directors are elected by ICUS’s shareholder, IFUS. As an initial matter, ICUS Directors must meet the qualifications set forth in the ICUS Rules. In addition, IFUS employs the ICE, Inc. vetting process for all new Directors. Such process provides the basis for ensuring Directors have appropriate skills and incentives to fulfill their responsibilities as a Director of ICUS. The Board annually reviews and evaluates both its overall performance and the performance of individual Directors.

The Board establishes and annually reviews the charter of the Risk Committee. The Risk Committee is comprised of a Chairman (a non-executive director of the Board), the President of ICUS, an IFUS designee, the ICUS Chief Risk Officer, the Chairman of the Board, and up to seven individuals who are affiliated persons of a CM or of a member of IFUS. Members of the Risk Committee are appointed by the Board. The Risk Committee advises and makes recommendations to the Board with respect to risk management measures designed to protect the integrity and the safety and efficiency of ICUS. Members of the Board and Risk Committee are required to follow established procedures for identifying, addressing, and managing conflicts of interest involving such members.

The Board appoints the ICUS officers and prescribes the authority and duties to be performed by each officer pursuant to the ICUS By-Laws. The Board is responsible for appointing officers that have the appropriate experience, skills, and integrity necessary to discharge ICUS operational and risk management responsibilities. In addition, the Board is charged with ensuring that risk management and internal control personnel have sufficient independence, authority, resources, and access to the Board so that the operations of ICUS are consistent with the Risk...
Management Framework established by the Board.

The President of ICUS reports to the Board and ICUS officers are accountable to the President. The ICUS Chief Risk Officer also has a reporting line to the Chairperson of the ICUS Risk Committee, who is also a non-executive director on the ICUS Board. See the ICUS organization chart under “III. General Background of the FMI” above. The internal audit function is independent from the activities of the business. Internal Audit is an ICE, Inc. function that has authority to review all areas of the ICE group. The Internal Audit Department provides ICUS with an independent source of assurance on compliance controls, including risk management. Internal Audit reports to the ICE, Inc. Board of Directors with “dotted line” reporting to the ICUS Board. The President supervises the business and affairs of ICUS, subject to the direction of the Board, and is responsible for implementing the decisions of the Board. No less than annually, the Board approves various policies, procedures and frameworks, including a Risk Management Framework, to provide for the comprehensive management of all material risks to which ICUS is, or may be exposed. Per such policies, procedures and framework, the President is responsible for crisis management, implementing default rules and procedures, system safeguard rules and procedures, and recovery and wind-down plans.

The ICUS Rules concerning governance, along with a list of current ICUS Directors, Risk Committee members and Officers is available on the ICUS website.

Non-confidential major decisions of the Board are clearly disclosed in a timely manner to CMs, other relevant stakeholders, and to the Commission. Typically such disclosure occurs via public rule filings with the Commission along with the issuance of CM notices or advisories. Additionally, subject to confidentiality requirements, major decisions of the Board having a broad market impact are disclosed to the public through press releases and/or CFTC rule filings (both of which are publicly available on the ICUS website). Further, ICUS updates the information disclosed on its website to reflect any such major decisions appropriately.
### 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.

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<td>ICUS has a sound risk management framework for comprehensively managing legal, credit, liquidity, operational and other risks.</td>
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ICUS’s risk management program includes risk management policies, procedures and systems that enable ICUS to identify, measure, monitor and manage the risks faced by ICUS including legal, credit, liquidity, operational, collateral, custody and settlement risk. The ICUS Risk Committee regularly reviews and recommends Board approval of the risk management framework including clearing membership requirements, margin parameter settings and sensitivity analysis, default management procedures, analysis of guaranty fund requirements, continuous real-time position and price monitoring, collateral management, counterparty risk reviews, liquidity analysis and stress scenarios.

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

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

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

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

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

ICUS addresses investment risk by complying with applicable regulations which limit investment instruments to those with high credit quality, high liquidity and low price volatility. Custody and investment risks are covered under Principle 16.

Settlement risk is mitigated through payment deadlines and clearly detailed settlement policies and procedures. Additionally, ICUS monitors SBs and liquidity providers on an ongoing basis.

ICUS provides incentives to CMs to monitor and manage the risks they pose to ICUS. The incentives include:

- Rules that require CMs to maintain current written risk management policies and procedures, which address the risks that such CMs may pose to ICUS and a requirement that CMs make information and documents regarding their risk management policies, procedures, and practices
available to the CFTC upon the CFTC’s request;

- Rules that require CMs to actively manage their positions and the ability of ICUS, should a CM fail to continue to meet membership criteria, to remove that CM from membership of ICUS; and
- The ability of ICUS to impose risk mitigation measures such as higher margin and guaranty fund requirements on those CMs who ICUS considers pose a threat to the operations of ICUS.

In addition, the ICUS Rules give ICUS powers to discipline and take corrective action against CMs who fail to comply with the ICUS Rules including the Clearing Member Agreement.

The ICUS default management and recovery and wind-down provide for the ongoing provision of clearing services during recovery as well as an orderly process in the event wind-down becomes necessary. Additional information is available under Principle 13 and Principle 15.
Principle 4: Credit Risk

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.

Summary narrative

ICUS effectively measures, monitors and manages its credit exposures to CMs and those arising from its payment, clearing and settlement process. ICUS maintains sufficient resources to cover its credit exposure to each CM fully with a high degree of confidence. In addition, ICUS maintains financial resources sufficient to cover a wide range of potential stress scenarios, including the default of the two CMs, and their affiliate(s) if applicable, that would cause the largest aggregate credit exposure to ICUS in extreme but plausible market conditions.

To mitigate credit risk, ICUS actively monitors credit exposure to CMs and conducts due diligence on SBs and liquidity providers. ICUS’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.

In its operation as a clearing house, ICUS acts as a CCP and rigorously controls the risks it assumes. The ICUS approach to risk management includes detailed requirements (i) in order to become and remain a CM (discussed in detail under Principle 18) and (ii) regarding the calculation and collection of margin requirements designed to cover current and future exposures to each CM with a high degree of confidence (discussed in detail under Principle 6). In addition, as discussed below, ICUS maintains additional financial resources to cover a wide range of potential stress scenarios.

ICUS requires all CMs to participate in funding the Guaranty Fund (“GF”). The GF mutualizes losses under extreme but plausible market scenarios. The ICUS GF is designed to provide adequate funds to cover losses associated with the default of the two CMs, and their affiliate(s) if applicable, that would cause the largest aggregate credit exposure to ICUS in extreme but plausible market conditions. The GF methodology computes the magnitude of potential losses based on a comprehensive set of theoretical and historical stress test scenarios. ICUS calculates the adequacy of the GF daily using pre-determined parameters and
assumptions for different stress scenarios. In addition, the Risk Department reviews the results of reverse stress testing on a monthly basis. Further, the Risk Department reviews and documents the supporting rationale for the size of the GF to be maintained by ICUS and reports the results of its review to the ICUS Risk Committee on a quarterly basis. If the Risk Committee determines that changes to the size of financial resources are necessary, then such changes are recommended to and considered by the Board.

The GF is allocated amongst CMs pursuant to the ICUS Rules as follows: 80% based on risk (from margin requirements) and 20% based on volume. The minimum contribution to the GF by a CM is $2,000,000. The GF allocation calculation is determined monthly and any CM deficiencies are collected on a quarterly basis; provided that, GF calls are made on a monthly basis to any CM whose calculated GF requirement is 20%(or more) higher than their current GF requirement. CMs with excess GF funds on deposit are permitted to withdraw the excess on a quarterly basis.

ICUS has committed to make certain contributions to financial resources to ensure that its economic interest is aligned with its CMs. In particular, ICUS has committed to make a one-time “Priority Contribution” of $50 million to be applied prior to the use of GF contributions of non-defaulting CMs.

ICUS Rules require CMs to replenish contributions to the GF that have been used. The amount required to be replenished (the losses or Aggregate GF Deficit) is allocated pro rata across CMs based on their margin and volume for the period three calendar months prior to the default. Although replenishments will not occur during a “cooling-off period” (which is triggered by certain calls for assessments or sequential GF depletion), ICUS Rules require that CMs replenish their GF contributions at the end of the period and that each CM provide additional original margin during the cooling-off period to support clearing operations.

Last, in the case of losses exceeding the funded financial resources available to ICUS, ICUS may also impose assessments on CMs, subject to a per default assessment limit (2x GF contribution) and an aggregate assessment limit for all defaults relating to a cooling-off period (5.5x GF contribution).
**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.

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ICUS CMs are required to post margin and contribute to the GF to collateralize their credit exposure to ICUS. ICUS limits the assets it accepts as collateral to only cash and U.S. Treasury securities. ICUS Rules require GF contributions to be a minimum of 50% USD cash. CMs who receive intra-day or end-of-day variation and original margin calls must meet those requirements in cash. End-of-day original margin calls must be met in cash. During the day, CMs may substitute U.S. Treasury securities for a portion of their cash. ICUS utilizes the ECS to provide for the ongoing monitoring and management of collateral. ICUS does not currently have access to a central bank (i.e., the Federal Reserve banks) for deposits of cash balances. Accordingly, ICUS has policies in place to securitize its cash balances, in appropriate amounts while still meeting its liquidity needs, in order to limit the amount of unsecured cash deposits held at commercial banks.

U.S. Treasury securities are valued using market prices daily, and are subject to haircuts as determined by Risk Department policy. Valuations of collateral held at ICUS include appropriate haircuts designed to account for potential decline in asset liquidation value during stressed market conditions. Haircuts are reviewed at least monthly by the ICUS Risk Department, but may be updated more frequently if necessary due to significant market condition changes. In setting and monitoring haircut levels, ICUS uses a risk model based on the historical distribution of 5-day fluctuations in value. In addition, ICUS conducts back-testing to verify that the risk model is performing properly. The specific haircut percentages are published and available on the ICUS website.
**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.

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<td>ICUS covers its credit exposures to its CMs for all products through an effective margin system that is risk-based and regularly reviewed.</td>
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ICUS holds original margin in respect of all open positions. The original margin requirement is sized to cover potential losses should it become necessary to liquidate a CM’s portfolio of positions. CM original margin requirements are re-calculated following the close of business each business day, separately for each CM house and customer account, using the SPAN® algorithm. SPAN® is the widely recognized, industry standard risk model, which calculates risk under a variety of stress scenarios.¹

Original margin is calculated using the historical price volatility of the contract being margined. It is collected to ensure CMs can meet their variation margin obligations for the next day, should the market move significantly against the positions the CMs are carrying. ICUS’s margin requirements are based on a one day holding period for contracts held in the CM customer origin and a two holding period for non-agricultural contracts held in the CM house origin. SPAN determines the largest theoretical loss a CM could incur in one day for customer positions and (two days for non-agricultural house positions) using margin parameters set by the ICUS Risk Department. The difference between the one and two day holding period margin is called the “EMIR Top-up” and is collected separately on a daily basis.

The ICUS Risk Department uses a variety of analytical tools and procedures to establish and validate the margin parameters. ICUS uses a time series based on adjusted daily P/L to establish margin requirements. Margin requirements are set to the highest value of several statistics. Those statistics include the maximum absolute adjusted P/L in the past 10 days, the 99% quantile of the adjusted P/L over the past 100 days, 99% of adjusted P/L over 250 and 500 days and the 99% quantile of the exponentially weighted moving average of the adjusted P/L over 500 days. To comply with EMIR requirements, the ICUS Risk Department calculates a statistic that includes an EMIR-compliant anti-procyclical (APC) measure. This statistic is based on the 99th quantile of the exponentially weighted moving average of the adjusted P/L over 10 years, which is EMIR’s APC Alternative C.

ICUS adjusts the margin requirement for each commodity up or down as market volatility changes. If a CM’s original margin requirement increases and ICUS is not holding sufficient excess cash or collateral from the CM to cover the increase, ICUS will call that CM for additional original margin to meet the deficiency. This calculation is made daily on the basis of each CM’s end-of-day positions. ICUS is

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¹ SPAN® is a registered trademark of Chicago Mercantile Exchange Inc., used herein under license. Chicago Mercantile Exchange Inc. assumes no liability in connection with the use of SPAN by any person or entity.
required to collect gross margins for customer segregated positions from its CMs. As such, CMs are required to submit customer positions by account to ICUS on a daily basis. The positions reported by the CM are reconciled against the customer segregated positions in clearing. Those positions that cannot be reconciled comprise a balancing account which is margined on an outright gross basis.

ICUS allows margin reduction for spreads between products that display a high degree of price correlation. Typically, prices between products must have a correlation in excess of 70% to be considered for a reduced margin on a spread position. ICUS offers cross-margin offsets for certain equity index products that are significantly and reliably correlated with certain option products offered by the Options Clearing Corporation (a registered DCO). See Principle 20.

ICUS receives real time price feeds as well as daily end-of-day settlement prices from IFUS. IFUS has well established rules regarding the determination of settlement prices and its products are highly liquid resulting in a reliable and timely source of pricing data for ICUS. ICUS Rules provide that if a contract were to cease trading because of price limits, then ICUS, in coordination with IFUS, may determine a “synthetic” price reflecting the fair market value of such contract as of the close of trading in such contract on such day.

ICUS also applies an add-on margin charge to certain CMs in order to reduce the applicable CM’s exposure to the GF (referred to as the “Stress Loss Charge”). The Stress Loss Charge has two components as follows:

**Component 1:**
- ICUS identifies the stress scenarios where losses from the two largest CMs exceed 95% of the target GF size, which is currently set to $400 million.
- ICUS calculates the amount of exposure exceeding 95% of the target Guaranty Fund size.
- ICUS determines each CM’s percentage of the total exposure over 95%.
- ICUS allocates this charge across the two largest CMs by multiplying the amount of the exposure over 95% by each firm’s percentage of the total exposure.

**Component 2:**
- ICUS identifies each CM’s largest stress loss for all scenarios.
- ICUS identifies any individual CM’s exposure over a specified percentage (currently set at 70%) of the target GF size after applying any amount from Stress Loss Charge Component 1 (if applicable).
- ICUS allocates this charge to the individual CM.
- The amount of the Stress Loss Charge II is 50% of the stress loss in excess of 70% of the guaranty fund.
- Any Stress Loss Charge I amount reduces the amount of Stress Loss Charge II.

The Stress Loss Charge is calculated every night after the end-of-day processing and collected as a separate initial margin call each morning.
Once the Stress Loss Charge is applied to a CM, it will remain in effect for 8 calendar days. As a result, the Stress Loss Charge added to a CM's initial margin will be the highest stress loss calculated over the last 8 calendar days.

Further, the ICUS Risk Department has the ability to require CMs to post additional initial margin requirements in excess of the requirements generated by SPAN and the Stress Loss Charge. These add-on initial margin requirements typically are a result of a CM's financial position and/or intra-day trading pattern.

ICUS has the authority and operational ability to make intra-day margin calls and payments, both scheduled and unscheduled, to CMs. Variation margin covers the previous day's open positions and the new positions resulting from the current day's trading activity of the CM. Variation margin for futures contracts can be paid to, and must be collected from, CMs twice each day. The intra-day variation calculation uses a prevailing market price whereas the end-of-day calculation uses the daily settlement price for each futures contract. In addition to the scheduled intra-day variation calculation, ICUS may initiate additional intra-day margin calls, for example, in times of greater volatility. These intra-day margin payments constitute advance payments against the end-of-day margin calculation. Calls for intra-day margin payments by CMs are required to be satisfied within 60 minutes of request by ICUS. CMs must pay the margin calculated at the end of each day by the morning of the following business day. The end-of-day margin includes any remaining margin not paid or received from the prior day's intra-day variation margin calls resulting from price changes, new trading activity and option premiums incurred after the intra-day call.

ICUS conducts backtesting on a periodic basis to review the adequacy of margin requirements. ICUS's backtesting consists of verifying that the number of actual losses on a per product and CM basis is consistent with the number of projected losses on a per product and CM basis. The total number of exceptions, if any, 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 consistently demonstrates exceptions, the Risk Department reviews the models and recommends revisions to the ICUS Risk Committee.

At least monthly, ICUS prepares a sensitivity and seasonality analysis report which provides an assessment of the margin requirements process. The ICUS Risk Department presents these reports to the Risk Committee on a quarterly basis. The assessments are evaluations of the effectiveness of the margin models and contain any recommendations for changes. They also evaluate the margin methodology under a wide range of volatilities and look for seasonal trends to ensure the margin calculation will properly assess risk should those environments occur.

ICUS obtains annual independent validations of its margin models.
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

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

ICUS’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 CMs and their affiliates that would generate the largest aggregate liquidity obligation for ICUS. ICUS 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. The Risk Department compares ICUS’s qualifying liquidity resources to its daily liquidity requirement determinations and will take immediate action in the event such qualifying resources are less than the liquidity requirements (including utilization of ICUS additional liquidity resources). At any given time, liquidity resources include:

- USD Cash in the ICUS GF. ICUS rules require that CMs deposit a minimum of 50% of their GF requirement in USD cash.
- USD Cash deposited by CMs that are subject to the Stress Loss Charge and EMIR Top-up (see Principle 6) must be paid and remain in USD Cash - no collateral substitution is allowed.
- U.S. Treasury securities subject to committed repurchase agreements and other pre-arranged and highly reliable funding arrangements which enable ICUS to quickly sell such collateral and receive the cash proceeds from the sale on a same day basis.

On a monthly basis, the Risk Department evaluates the scenarios used to determine the liquidity requirements. It looks at the intra-day, end-of-day and two day variation margin under various conditions to determine the appropriate metric for setting the liquidity requirements. ICUS requires its CMs to meet non-USD variation margin payment obligations in the currency of the obligation. Each scenario is designed to consider relevant peak historical price volatilities and the impact of other market factors including, as appropriate, price determinants and yield curves, multiple defaults over various time horizons; simultaneous pressures in funding and asset markets; and a range of forward looking stress scenarios under extreme but plausible market conditions.

When performing the monthly analysis of the liquidity stress scenarios, ICUS considers the impact on SBs, depositories, liquidity providers and other entities,
and the impact of any inter-linkages between CMs and other roles they may have. In addition, ICUS evaluates and manages its exposure to liquidity providers and other counterparties across its affiliated clearing house entities within the ICE, Inc. family. ICUS also considers multi-day scenarios and the probability of multiple firm failures and contagion effect among CMs when evaluating the stress scenarios for liquidity. Furthermore, ICUS periodically tests its procedures for accessing its liquidity arrangements, and its ability to convert currencies pursuant to FX spot transactions.

ICUS performs due diligence with respect to its liquidity providers including the following:

- Reviews of financial statements
- Evaluation of credit risk
- Access to the central bank of issue for particular currencies
- Volatility of stock price (if publicly listed)
- Analysis of capital structure
- Size of provider’s repurchase facility

Liquidity stress testing results are reviewed daily. The Risk Committee reviews such reports on a quarterly basis (and more frequently if there are significant changes in market volatility or liquidity) and will recommend any necessary changes to the Board for its consideration and approval.

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

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<th>Summary narrative</th>
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<tr>
<td>ICUS provides clear and certain final settlement upon payment and receipt of funds in real time.</td>
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<tr>
<td>ICUS uses approved Settlement Banks to manage daily settlements (see Principle 9). Cash settlement is relevant for the payment of original margin, variation margin, option premiums and required GF contributions. Pursuant to its legal agreements with the SBs, settlement fund transfers are irrevocable and unconditional when ICUS’s account at the settlement bank is debited or credited (subject to certain provisions for corrections of errors).</td>
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**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** | ICUS conducts its money settlements through approved commercial banks as it has not been granted access to central bank money. The financial institutions that ICUS 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. A list of ICUS SBs is available on the ICUS website.

ICUS monitors the financial health of the financial institutions in which it holds its settlement and custodial accounts. The ICUS Risk Department monitors the financial condition of each Settlement Bank on an on-going basis, with an emphasis on measures related to liquidity and cash management. ICUS 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 ICUS’s view of the Settlement Bank’s risk level.

ICUS’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 ICUS’s account at the Settlement Bank is debited or credited (subject to certain provisions for corrections of errors). Additionally ICUS has added the concept of a Qualified Financial Institution (“QFI”) to its rules. A CM may use a QFI to serve as a back-up payment source to ensure the timely payment of their USD obligations to ICUS. |
### 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.

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| The ICUS Rules clearly state ICUS’s obligations with respect to physical deliveries. In addition, ICUS regularly identifies, monitors and manages the risks associated with such physical deliveries.  

Physical settlement is applicable for certain commodities traded on IFUS. ICUS participates in and supports physical settlements for coffee, cocoa, sugar, cotton, orange juice, currency and metals contracts. IFUS Rules address the management of risks and costs of storage and the allocation of risks between the delivery participants related to delivery of physical instruments or commodities.  

For physically-deliverable commodities, ICUS, IFUS, and CMs use various applications to facilitate delivery processing. The eCOPS system is an electronic warehouse receipt inventory system, certified by the USDA to handle the function and documentation required to accomplish physical delivery of certain IFUS Agricultural products. The Guardian delivery system is similarly utilized for processing physical deliveries of precious metals.  

ICUS Rules provide that once a delivery notice has been issued by it to a CM, ICUS has no further rights or obligations under the futures contract. If positions are to be physically settled, ICUS collects original margin and variation margin from both CM delivery participants until the deliveries are complete. ICUS does not physically store any commodities pursuant to the IFUS Rules. However, in supporting physical deliveries, ICUS may temporarily become the title holder of an Electronic Warehouse Receipt (“EWR”) or holder of currencies in connection with the delivery of commodities, metals or currencies under IFUS contracts. In such case, ICUS Rules state that ICUS will hold the EWR or currencies solely as an escrow agent on behalf of the CM and shall not be liable to any party for any damages arising in connection with acting as such escrow agent. |
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.*

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<td>All margin payments, option premium and GF contribution payments to and from ICUS do not involve two linked obligations.</td>
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<td>As described above in Principle 10, ICUS eliminates principal risk with respect to certain physical deliveries by acting solely as escrow agent in such transactions. ICUS uses the “delivery versus payment” (“DVP”) settlement method for repurchase and reverse repurchase transactions of U.S. Treasury securities. The DVP repurchase agreements formalize that the final settlement of one obligation occurs only when the final settlement of the linked obligation occurs.</td>
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**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.

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<td>ICUS has effective and clearly defined rules and procedures designed to manage a CM default. ICUS Rules and procedures are designed to ensure that ICUS can take timely action to contain losses and liquidity pressures and continue to meet its obligations.</td>
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The ICUS Rules define the circumstances for declaration of a CM default, including a CM’s failure to meet payment obligations to ICUS. The ICUS Rules and procedures provide for the management of a CM default. As each financial emergency or default is unique, the ICUS Rules and procedures provide ICUS with authority and flexibility to best implement the default procedures.

In general, the ICUS default management procedures may include: (i) declaring a CM in default; (ii) communicating the default; (iii) suspending the defaulting CM and (iv) conducting hedging and portfolio liquidation (through market operation or an auction process). In the event the defaulting CM has customer related positions, ICUS may transfer non-defaulting customer positions from the defaulting CM to a non-defaulting CM(s), to the extent permitted by law and in all cases subject to agreement from the receiving CM(s). If necessary to cover losses from a CM default, ICUS’s default resources will be consumed in the following order:

1. **ICUS Priority Contribution of $50 Million**
2. **Non-defaulting clearing members’ Guaranty Fund**
3. **Assessments on clearing members subject to caps of 2x Guaranty Fund requirement per single default and overall cap of 5.5x Guaranty Fund requirement**

In the unlikely event that ICUS’s funded default resources are inadequate to resolve a CM default, ICUS has additional recovery tools available; including, assessment rights and the requirement that CMs “replenish” the GF to restore any deficiencies caused by the consumption of GF assets during a CM default. Under the Rules, ICUS may apply resources deposited by or recovered from a defaulting CM, as well as other available default resources, to repay amounts borrowed against the GF. ICUS conducts testing of its default procedures at least annually.
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.

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<td>ICUS maintains rules and procedures that enable the segregation and portability of positions of a CM’s customers and the collateral provided to ICUS with respect to those positions.</td>
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ICUS Rules, together with the customer protection regime set forth in Section 4d(a) of the CEA and underlying CFTC regulations (primarily CFTC Regulations 1.20, 1.22 and 1.25), provide that futures customer funds are protected on an omnibus basis, are segregated and may be transferred along with related positions by ICUS. These CFTC regulations include detailed requirements addressing custody, segregation and investment of customer margin provided in respect of futures contracts. The ICUS Rules conform with and apply such segregation requirements.

Customer funds deposited by ICUS are held under an account name that clearly identifies the funds as belonging to the CM’s customers. ICUS obtains and retains a written acknowledgement from each Settlement Bank stating that the segregated funds deposited by ICUS belong to its CMs’ customers and are held in accordance with the CEA.

The ICUS Rules permit the transfer of customer positions. Pursuant to ICUS Rules, each CM (other than a Defaulting CM) that carries customer positions is required, upon request of the customer for whom such positions are carried, to transfer such customer’s positions to one or more other CMs. Such transfer does not require the consent of the transferor CM, but is subject to: the consent of the transferee CM; satisfaction by the customer of any margin requirements imposed by the transferor CM on any positions remaining at the transferor CM; and the completion of all required transfer documentation. In addition, in the case of default, ICUS may transfer non-defaulting customer positions from the defaulting CM to a non-defaulting CM(s), to the extent permitted by law and in all cases subject to agreement from the receiving CM(s).
**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 materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

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<tr>
<td>ICUS 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, ICUS has established a number of mechanisms and metrics to monitor and manage clearing business, operational, regulatory and financial risks. Furthermore, ICUS’s liquid net assets are at all times sufficient to ensure a recovery or orderly wind-down of critical operations and services.</td>
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ICUS has robust management and control systems through governance, enterprise risk management, financial statements and internal audit to ensure that ICUS identifies and is aware of general business risk. The ICUS Rules provide for recovery and wind-down following the insolvency of a CM, a business decision of ICUS to exit clearing services, the insolvency of ICUS and other business losses.

As a CFTC registered DCO, ICUS complies with CFTC Regulation 39.11(a)(2) which imposes a regulatory capital requirement on ICUS equal to ICUS’s projected 12 months operating expenses calculated on a rolling basis. In addition, ICUS on a voluntary basis, calculates what its regulatory capital requirement would be if ICUS was subject to EU based clearing house requirements.\(^2\) It is ICUS’s policy to maintain regulatory capital in an amount at least equal to the higher of the CFTC requirement and the EU requirement. Currently the EU regulatory capital calculation methodology results in a higher requirement than the CFTC calculation, therefore ICUS 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 ICUS to comply with its regulatory capital policy and related regulations, would enable ICUS to continue its operations as a going concern in the event it incurs a general business loss, or would enable ICUS to complete the steps necessary to implement its recovery plan and/or its wind-down plan, as appropriate.

ICUS’s regulatory capital assets are sufficient to support its operations during any recovery or wind-down process. Specifically, ICUS 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. ICUS’s regulatory capital assets

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\(^2\) Such EU regulatory capital requirements are defined by EMIR under EU Regulation 153/2013.
are unencumbered, liquid financial assets (i.e. cash and/or highly liquid securities).

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

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ICUS safeguards its own and its CMs’ assets through the use of approved Settlement Banks that employ accounting practices, safekeeping procedures and internal controls that protect deposits. The financial institutions that ICUS uses for settlement and custody are among the largest financial institutions in the world. ICUS monitors the financial health of its Settlement Banks as discussed under Principle 9.

CM collateral posted with ICUS (i.e., cash and U.S. Treasury securities) has minimal credit, market and liquidity risks. ICUS uses mark-to-market valuations and haircuts to minimize the risk of loss or delay in access to these assets. Further details regarding collateral can be found in Principle 5. ICUS may use third party investment managers for investment activity of CM cash deposits. Such deposits are invested in accordance with investment guidelines as adopted by the ICUS Board.
**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**

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

ICUS’s operational risk program addresses the risk that deficiencies in information systems or internal processes, human errors, management failures or disruptions from external events will result in the reduction, deterioration, or breakdown of services provided by ICUS. On at least an annual basis, the ICUS Board reviews and approves an operational risk framework for ICUS that includes operational performance standard setting and monitoring, and risk identification, assessment, and mitigation.

ICUS 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. ICUS reports breaches to the ICUS Board on a quarterly basis and will report significant breaches to the CFTC as required by applicable regulations. 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 ICUS management and reviewed by the ICUS Board.

ICUS has a risk- based assessment methodology, which identifies comprehensive clearing processes and risk scenarios related to each major clearing function (e.g., new trade intake, position management, risk and pricing, treasury, etc.). The methodology includes a review to ensure adequate expertise, training and supervision of personnel, as well as processes to regularly review internal control procedures. Processes also address the availability, connectivity and capacity of computer systems, communications systems, power sources and data feeds.

ICUS utilizes ICE, Inc.’s robust information security program including policies and procedures to ensure employee compliance. ICE, Inc.’s information security program includes: 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. ICE, Inc. performs network scans and penetration tests regularly to ensure the information security systems are performing as designed. In addition, the quality assurance team tests all ICE, Inc. systems (including ICUS systems) to ensure reliability and adequate scalable capacity.

ICUS has a comprehensive business continuity and disaster recovery program that supports the continued performance of critical functions in the event ICUS’s headquarters or primary data center are 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, ICUS maintains a detailed Business Continuity Plan (“BCP”). The BCP outlines ICUS’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 widespread disruption affecting staff, data and facilities. ICUS conducts regular BCP and disaster recovery testing and incorporates CMs. ICUS participates in the industry wide disaster recovery testing conducted in coordination with the Futures Industry Association.
**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.

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The membership requirements of ICUS are publicly disclosed in the ICUS Rules and are designed to permit fair and open access, while protecting ICUS and its CMs. 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. ICUS applies a due diligence process to ensure that all applicants meet the required criteria and conducts on-going monitoring of CMs.

ICUS maintains its Clearing Membership Informational Package, Application Instructions and Forms on its website. Any organization applying for clearing membership with ICUS must satisfy the requirements detailed in the application and summarized below both initially and on an on-going basis.

Membership requirements include:

- Minimum capital requirement
- Clearing Membership Agreement
- Regulatory Standing
- Experience and training of applicant/CM staff
- Appropriate technical and operational systems and controls
- Banking and collateral arrangements
- Contributions to GF
- Parent guarantee

CMs must have at least $5,000,000 in adjusted net capital, and any CM regulated by the CFTC must also satisfy applicable CFTC capital requirements and segregate and account for all customer funds and property separate and apart from the CM's own property. All CMs must be member firms of IFUS. Additionally, CMs must institute risk management controls and demonstrate the operational capability to handle customer business if applicable. All CMs must establish banking arrangements with approved SBs to facilitate payments to and from ICUS.

All CMs are required to provide monthly financial reports on a timely basis (and, if a CM has customers, must file daily segregation statements as well). Furthermore, the ICUS Rules require CMs to provide notice of significant financial, regulatory, and organizational events that could impact the financial or operational capacity of a CM. In addition, ICUS reviews the risk management policies, procedures, and practices of its CMs. The periodic risk review is used to assess the effectiveness of each CM's risk and credit frameworks, procedures and policies. ICUS Rules publicly set forth CM obligations and procedures for the suspension and orderly exit of a CM that breaches, or no longer meets, ICUS participation requirements.
**Principle 19: Tiered participation arrangements**

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

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<tr>
<td>ICUS does not currently have tiered participation arrangements. ICUS has legally binding agreements with its CMs, however, ICUS has no legal agreements with CMs’ underlying customers. While ICUS does not have a legal relationship with the underlying customers of a CM, ICUS is required to collect and maintain certain underlying customer information sufficient to enable ICUS to conduct risk management and to provide for customer gross margining as detailed under Principle 6.</td>
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### Principle 20: FMI links

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

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<th><strong>Summary narrative</strong></th>
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<td>ICUS has a cross-margining program in place with Options Clearing Corporation (“OCC”) whereby joint clearing members (“Joint CMs”) and pairs of affiliated clearing members (“Affiliated CMs”) may elect to have certain futures contracts and option contracts cleared by the respective clearing organizations carried in special “pairs of accounts” (house or non-house accounts), each pair to be combined and margined as a single account based upon the net risk presented by the contracts carried in the accounts. ICUS has legal agreements with OCC, the SBs and the CMs that have enrolled to have these cross-margining benefits in order to provide for the sharing of collateral held against such net risk and to provide for the sharing of any potential losses arising from a CM default.</td>
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The cross margining infrastructure involves the creation of a cross-margining account on the books of ICUS in which the ICUS CM carries all positions in eligible contracts that it elects to cross-margin. Similarly, OCC creates a cross-margining account on its books for the Joint CM (or Affiliated CM) in which to carry the cross-marginated contract that are cleared by OCC. CMs designate the positions to be allocated to the cross-margining accounts daily. The clearing system will only allow cross-margin eligible contracts to be placed in the cross-margin accounts. The two clearing organizations review the risk of, and exchange data after the close of each trading day regarding the positions in, each participating CM’s cross margining accounts. The options and futures positions are then combined and margined as a single portfolio. Accordingly, if (for example) a CM was long futures and short call options on related underlying interests, the risk in those two positions would offset each other and result in a margin requirement of the CM which is less than the sum of the margin that would be required by each clearing organization if the positions were margined separately. Daily settlements associated with cross-margining accounts (including payment of option premiums, futures variation margin and cash margin deposits) are processed through a bank account jointly owned by both clearing organizations, with any cash flows into or out of the account requiring the approval of both clearing organizations. Likewise, if the CM pledges securities to collateralize the margin requirements associated with the account, these securities are held in a joint custody account, again requiring the approval of both organizations before collateral is released by the bank. The clearing organizations each rely on their own guaranty funds in the event of default and do not maintain a separate default fund to support the cross-margining program.

Cross-margin accounts are jointly owned and managed, and accordingly one of the first benefits participants receive is a netting of settlements between the two organizations. This netting process results in lower cost for the CM, in the form of fewer transactions, as well as increased liquidity as a result of netting cash in-flows against cash out-flows between CCPs.

ICUS calculates the final variation pay/collect for each cross-margin CM and provides such amounts to OCC to settle through the joint ICUS/OCC bank account. Final variation is combined with any option premium settlement amounts,
exercise/assignment cash settlement amounts and any miscellaneous pay/collect to arrive at a Net Daily Settlement (Pay/Collect) total processed through the normal settlement process.

OCC and ICUS cooperate in sharing information on Joint CMs and Affiliated CMs. For regulatory purposes, cross-margining accounts are treated as futures accounts. Participation in cross-margin accounts is limited to proprietary and “market professional” activity. “Market professional” is defined to include persons and entities that have a market-making function in the securities markets as well as members of futures exchanges trading for their own accounts. Non-proprietary market professional accounts are subject to CFTC segregation rules and all customer property held in connection with such accounts must be segregated both on the books of both clearing organizations and also when held as margin in Settlement Banks. In the case of a CM or clearing organization insolvency, the cross-margining accounts would be liquidated in accordance with the insolvency regime applicable to futures commission merchants and DCOs.
**Principle 21: Efficiency and Effectiveness**

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

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ICUS’s objective is to provide secure, capital-efficient counterparty risk management and post-trade services for the agricultural, currency, metals, equity index and credit index markets of IFUS.

The ICUS clearing systems encompass a number of integrated systems, most importantly the PTMS and the ECS. PTMS provides real time trade processing services enabling CMs to offer real time risk management services. Within PTMS, if trades are marked for give-up they go into the Allocation and Claim Transaction System ("ACT") where CMs can initiate allocations and monitor the status. Give-up transactions are recorded in the clearing system and reflected on the CM records and fed into the eGAINS system for billing.

ECS supports open and delivery position management, real-time trade and post trade accounting, risk management (daily and intraday cash, mark-to-market/option premium, and original margin using algorithms based on the SPAN algorithm), collateral management, daily settlement and banking. ECS is a state-of-the-art system offering open, Internet-based connectivity and integration options for CM access to user and account management, position reporting and collateral management. ECS also has an extensive currency delivery system to manage the delivery and payment of currency settlements.

ICUS offers real-time trade confirmation of trades booked for clearing over standard FIXML formatted messages and supports a multitude of post trade management functions including trade corrections, trade adjustment, position transfers, average pricing and give-up processing. ICUS takes a proactive approach to enhancing the reliability, capacity and performance of its clearing systems.

ICUS has established the following as a mechanism to review, on a regular basis, how it effectively and efficiently meets the needs of its CMs and markets:
- ICUS schedules “Working Group” meetings with all of its CMs on an approximately bi-monthly basis with the goal of meeting at least five times a year. The purpose of the group is to share upcoming system changes and provide a forum for CM feedback.
- Comments can be posted on ICE Community which is an information network for CMs and vendors to share ideas and use as a resource for anything ICUS related.
- ICUS staff participates on the boards of the Futures Industry Association.

ICUS has defined goals and objectives, which are measured by the following metrics:
- ECS EOD Processing Time
<table>
<thead>
<tr>
<th>ICUS Management Meets to Review the Above Metrics on a Quarterly Basis and Communicates the Results to the ICUS Board Quarterly.</th>
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</thead>
<tbody>
<tr>
<td>• Creation Time of SPAN Array Files</td>
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<tr>
<td>• FixML Matchoff Report Processing and Completion Times</td>
</tr>
<tr>
<td>• Settlement Instructions Sent to Banks</td>
</tr>
<tr>
<td>• Volume of Trades Processed Daily</td>
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<tr>
<td>• Processing Incidents</td>
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<td>• Clearing Application Uptime</td>
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</table>
**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.

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<thead>
<tr>
<th>Summary narrative</th>
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<tr>
<td>ICUS uses relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement and recording.</td>
</tr>
<tr>
<td>ICUS uses the widely accepted and internationally utilized Society for Worldwide Interbank Financial Telecommunication (“SWIFT”) for messaging of payment transactions.</td>
</tr>
<tr>
<td>ICUS utilizes FIXML real-time trade feeds to communicate trade information. FIXML is an internationally recognized, industry standard messaging protocol used by vendors to automate clearing transaction processing.</td>
</tr>
</tbody>
</table>
**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.

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<th>Summary narrative</th>
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<tr>
<td>ICUS has clear and comprehensive rules and procedures that provide sufficient information to enable CMs to have an accurate understanding of the risks, fees and other material costs they incur at ICUS. All relevant rules and key procedures are available to CMs. The ICUS Rules and other pertinent information are publicly available on the ICUS website.</td>
</tr>
</tbody>
</table>

The ICUS Rules comprehensively detail CM rights, obligations and risks and document the operation of ICUS in general as well as under non-routine, though foreseeable, events (e.g., CM default). In addition, ICUS provides CMs with policies and procedures that provide further detail regarding ICUS’s design and operations. As discussed under Principle 1, ICUS has a robust governance process for any changes to the ICUS Rules, inclusive of consultation with multiple stakeholders, public disclosure of all proposed changes and notification of material changes. ICUS assures CM 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. ICUS offers support and training to address any lack of understanding of the ICUS Rules or procedures by a CM.

ICUS’s clearing fees are publicly available on the ICUS website and CMs are notified of any changes to such fees.

ICUS most recently completed this Disclosure Framework on the date provided on the cover page. This Disclosure Framework is updated following material changes at ICUS and, at a minimum, every two years. Publicly disclosed information is available on the ICUS 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 ICUS can be found at www.theice.com. Hyperlinks to documents referenced within this Disclosure Framework are below.

ICUS Rules
ICUS Rule Filings
ICUS Clearing Members
ICUS Clearing Notices
ICUS Financial Resources
ICUS IFUS Data Volume Open Interest
ICUS IFUS Fees
ICUS Cleared Products
ICUS Collateral Haircuts
SPAN Explanation
ICUS Clearing Member Application
ICUS Clearing Membership Information Packet
ICUS Approved Depositories
ICUS Subpart C Election Letter
ICUS Governance