

**Exhibit 5C**



## Risk Management Framework Policy

---

<b>Annual Review and Approval:</b>	Board of Directors
<b>Version Effective Date:</b>	11/26/2021
<b>Scope:</b>	Firm-wide

### ~~I. PURPOSE~~

The purpose of the Risk Management Framework Policy ("RMF" or "Policy") is to describe The Options Clearing Corporation's ("OCC's") framework for comprehensive risk management, including OCC's framework to identify, measure, monitor and manage all risks faced by OCC in the provision of clearing, settlement and risk management services.<sup>1</sup> Section II.A. establishes the context for OCC's risk management framework. Section II.B. outlines OCC's risk management philosophy. Section II.C. describes OCC's Risk Appetite Framework and use of Risk Tolerances. Section II.D. describes the governance arrangements that implement risk management. Section II.E. outlines OCC's identification of Key Risks. Section II.F. describes OCC's program for enterprise-wide risk management, including the three lines of defense structure and OCC's approach to risk monitoring, assessment and reporting. Section II.G describes control activities.

### ~~II. POLICY DETAIL~~

#### ~~A. Context for Risk Management Framework~~

OCC is the world's largest equity derivatives clearing organization. As the foundation for secure markets, OCC delivers world-class risk management, clearing and settlement services to the listed options, financial and commodity futures, security futures and securities lending markets.

OCC serves a critical role in the financial markets as a central counterparty ("CCP"), guaranteeing that the obligations of the contracts it clears are fulfilled. OCC operates its business as an industry utility and receives the majority of its revenue from clearing fees charged to its members.

---

<sup>1</sup> OCC's framework is based primarily on the Committee of Sponsoring Organizations of the Treadway Commission and the International Organization for Standardization's 31000 principles for integrated risk management. The framework also incorporates guidance from the Financial Stability Board on risk appetite and risk tolerance, the Basel Committee on Banking Supervision principles for operational risk management, and the Committee on Payments and Market Infrastructures and International Organization of Securities Commissions *Principles for Financial Market Infrastructures*.



## Risk Management Framework Policy

---

In 2012, the Financial Stability Oversight Council designated OCC as a Systemically Important Financial Market Utility ("SIFMU"). OCC received this designation because it is a critical node in the financial markets as the sole provider of clearance, settlement and risk management services for U.S. listed options. As a SIFMU, OCC recognizes its role in promoting financial stability for market participants, investors and the global economy.

OCC operates under the jurisdiction of the Securities and Exchange Commission ("SEC") and the Commodity Futures Trading Commission ("CFTC"). As a covered clearing agency<sup>2</sup> under SEC jurisdiction, OCC clears options and security futures on a number of underlying financial assets, including common stocks and stock indexes, as well as securities lending transactions. As a registered derivatives clearing organization ("DCO")<sup>3</sup> under CFTC jurisdiction, OCC offers clearing and settlement services for transactions in futures and options on futures. As a designated SIFMU,<sup>4</sup> OCC also operates under the prudential supervision of the Board of Governors of the Federal Reserve System ("Federal Reserve Board").

### **B. Risk Management Philosophy**

OCC shall be mindful of the public interest and its obligation to promote financial stability, reduce the potential for systemic contagion, and support the smooth functioning of the U.S. financial markets. As a CCP, financial risks for the markets OCC serves are concentrated at OCC for all transactions it clears. As a result of this concentration, OCC's primary objective shall be to ensure that the financial risks that it takes on as a CCP, which primarily relate to the risk that a Clearing Member will default on its obligations to OCC, are managed according to applicable regulations and international standards for systemically important financial market infrastructures.

---

<sup>2</sup>-As defined by 17 CFR 240.17Ad-22(a)(5).

<sup>3</sup>-As defined in 17 CFR Part 39.

<sup>4</sup>-As provided for in Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.



## Risk Management Framework Policy

---

In its role as a CCP, every aspect of OCC's daily operations is devoted to providing CCP services, whether managing financial risk exposure, managing the operational risks that arise from the underlying provision of core clearing and settlement services, or managing the business risks in the options ecosystem. The majority of these risks shall be managed within a low risk appetite, meaning that daily operations, which are guided by policies, procedures and controls, reflect significant attention to ensuring that financial exposures and service disruptions are rare and within acceptable limits.

### **C. Risk Appetite Framework and Tolerance**

#### C.1 Risk Appetite

OCC's Risk Appetite Framework ("RAF") is a critical component of this Policy and shall be used to set the overall approach at the enterprise level for managing risks in an effective and integrated fashion across OCC. The RAF shall establish types of Key Risks OCC faces in accordance with OCC's requirements as a SIFMU, covered clearing agency and DCO, and in accordance with OCC's strategic objectives.<sup>5</sup> Key Risks shall be approved by OCC's Board of Directors ("Board"). The level of risk OCC is willing and able to assume shall be contained in Risk Appetite Statements, which OCC shall complete for each of its Key Risks. Risk Appetite Statements shall be set annually by each department associated with a Key Risk in cooperation with the Enterprise Risk Management department ("ERM") according to the Enterprise Risk Management Governance Procedure.

The purpose of a Risk Appetite Statement shall be to express OCC's view on the level of risk OCC is willing to accept for a Key Risk related to the provision of CCP services. Risk Appetite Statements shall be qualitative indications of risk appetite that set the tone for OCC's approach to risk taking, and shall be indicative of the level of resources or effort OCC puts forth to prevent or mitigate the impact of a Key Risk.

#### C.1.a Risk Appetite Statement Definitions<sup>6</sup>

Risk Appetite Statements shall fall in one of four categories: (i) no appetite, (ii) low appetite, (iii) moderate appetite, and (iv) high appetite, as defined below:

- i. No appetite: OCC is unwilling to deliberately accept any level of risk for a Key Risk in this category.
- ii. Low appetite: OCC devotes significant resources to managing risk, but may choose to accept certain risks that do not materially impact core clearing and settlement

---

<sup>5</sup>The Appendix to this Policy contains the Key Risks that by design align to the risks faced by systemically important CCPs outlined in international standards, the definitions of such Key Risks and related sub-categories.

<sup>6</sup>Risk Appetite Statements apply to Residual Risk, which is the level of risk exposure posed to a process or activity after the application of controls or other risk mitigating factors.



## Risk Management Framework Policy

---

~~because the level of resources that OCC would be required to put forth to mitigate the risks would be impractical.~~

- ~~iii. Moderate appetite: OCC is willing to engage in certain activities that may bring longer term efficiencies or result in new business opportunities even though the activities or new businesses may pose new risks to OCC.~~
- ~~iv. High appetite: OCC is willing to implement a new high risk process or business opportunity. It is unlikely OCC would apply this level of appetite to a Key Risk absent a compelling, urgent business need.~~

~~The Board shall annually review and have ultimately authority for approving the Risk Appetite Statements in connection with each Key Risk upon recommendation of the Management Committee.~~

### C.2 Risk Tolerances

~~Risk Tolerances shall represent the application of risk appetite to specific sub-categories or aspects of Key Risks. OCC shall use Risk Tolerances to set acceptable levels of risks (described further below), as approved by the Board. Risk Tolerances may be stated in either quantitative or qualitative terms, depending on the nature of the risk. The Board shall evaluate Risk Tolerances at least annually, and more frequently if necessary as a result of changes to products, processes, market conventions or other changes to Key Risks.~~

~~Each OCC department shall establish Risk Tolerances at least annually for sub-categories of Key Risks that are within their relevant domains of responsibility. Each department shall be responsible for managing applicable risks within established tolerance levels. ERM staff shall monitor Risk Tolerances through quantitative metrics, where applicable, and compile such monitoring in a report that the Chief Risk Officer shall present to the Management Committee and Board (or a committee thereof) at least quarterly. The Enterprise Risk Management Governance Procedure provides more detail on the processes for establishing and managing Risk Tolerances, including assignments of various OCC departments to Risk Tolerances.~~

## **D. Risk Management Governance**

~~OCC's risk management governance shall follow a hierarchical structure that begins with the Board, which has ultimate authority for maintaining a sound risk management framework. The structure shall include the Board, Board committees, Management Committee and various working groups established by the Management Committee.~~

### D.1 Board of Directors

~~The Board shall perform an oversight role to ensure that OCC is managed and operated in a manner consistent with the discharge of OCC's regulatory responsibilities as a SIFMU,~~



## ~~Risk Management Framework Policy~~

---

~~covered clearing agency and DCO providing clearance and settlement services. The Board shall have ultimate oversight responsibility for ensuring OCC has governance arrangements that, among other things, prioritize the safety and efficiency of OCC through a clear, documented risk management framework. The Board shall oversee risk management policies, procedures and systems designed to identify, measure, monitor and manage risks consistent within the Risk Appetite Statements and Risk Tolerances approved by the Board. Consistent with the Board Charter, the Board shall also oversee and approve OCC's Recovery and Orderly Wind-Down Plan.~~

~~The responsibilities of Board committees with regard to managing Key Risks shall be outlined in their respective committee charters.~~

### ~~D.2 Management Committee~~

~~The Management Committee shall be responsible for annually reviewing and approving this Policy and any changes to Risk Appetite Statements and Risk Tolerances and recommending further approval thereof to the Board. The Management Committee shall also review reports related to metrics for assessing Risk Tolerances to determine whether Key Risks are behaving within established tolerances and take or recommend action as needed to return Key Risks to their appropriate levels. The Management Committee shall escalate exceptions to Risk Tolerances and Risk Appetite Statements to the relevant Board committee and/or other issues related to Key Risks as outlined in the policies named in the Appendix to this Policy as applicable for managing OCC's Key Risks. Each such policy shall establish escalation protocol for the applicable Key Risks.~~

### ~~D.3 Risk Working Groups~~

~~The Management Committee may establish working groups to assist the Management Committee in its management of Key Risks identified in this Policy. Such working groups shall establish procedures governing their administration, including composition, authority, functions and responsibilities. Such procedures shall also include escalation protocols for risk issues that are identified by or brought to the working groups, which shall be consistent with escalation obligations established in this Policy, the Management Committee Charter, the Board Charter, Board Committee Charters, and applicable policies and procedures.~~

## **~~E. Identification of Key Risks~~**

~~OCC's risk management shall begin with identifying risks that could affect OCC's ability to perform services as expected. These risks are described in internationally recognized standards for CCP risk management and codified in various regulatory requirements to which OCC is subject. In forming its views on Key Risks, OCC shall consider direct financial and operational risks that may prevent the OCC's uninterrupted provision of CCP services, and also consider risks that may harm OCC's reputation and undermine the perception of OCC as a foundation of secure financial markets. In addition, OCC shall identify the risks it~~



## Risk Management Framework Policy

---

faces from third parties, such as custodians and settlement banks, that are critical to the design and operation of OCC's infrastructure and risk management.

OCC's Key Risks shall be defined and managed as follows:

### E.1 Financial Risk

Financial risk shall encompass: credit risk, liquidity risk, investment risk and model risk. OCC shall manage financial risk through the following:

#### E.1.a Credit Risk Management Framework

Credit risk is the risk that a counterparty will be unable to meet its obligations when due or the risk that OCC will not maintain sufficient financial resources to cover its credit exposures. OCC's credit risk management framework shall encompass policies and procedures for: (i) maintaining sufficient prefunded resources in the form of margin and clearing fund according to the Margin Policy and Clearing Fund Methodology Policy, respectively; (ii) accepting collateral from participants that is low risk and high quality according to the Collateral Risk Management Policy; (iii) monitoring the creditworthiness and operational reliability of all counterparties including participants, custodians, settlement banks and liquidity providers, and linked financial market utilities ("FMUs") according to the Third-Party Risk Management Framework; and (iv) maintaining a waterfall of resources to be used in the event of participant default and a process for replenishing resources according to the Default Management Policy.

#### E.1.b Liquidity Risk Management Framework

Liquidity risk is the risk that OCC will not maintain sufficient liquid resources to meet its same day and, where appropriate, intraday and multiday settlement of payment obligations. OCC's liquidity risk framework shall encompass policies and procedures for sizing liquidity resources to cover liquidity needs in the event of the default of the largest Clearing Member Group, forecasting daily settlements needs under normal market conditions, maintaining liquid resources in the form of cash and committed facilities, maintaining a contingency funding plan, and periodically reviewing the size of liquidity resources according to the Liquidity Risk Management Framework. The framework shall also include policies and procedures for maintaining liquidity resources at creditworthy custodians and monitoring the financial and operational performance of financial institutions and committed liquidity facilities according to the Third-Party Risk Management Framework and investing liquidity resources in safe overnight investments or at a Federal Reserve Bank according to the Cash and Investment Management Policy.

#### E.1.c Investment Risk

Investment risk is the risk that OCC will incur losses on overnight investments of margin and/or clearing fund assets. OCC shall maintain an account at a Federal Reserve Bank,



## Risk Management Framework Policy

---

~~which OCC views as bearing no investment risk, and shall invest funds not held at the Federal Reserve Bank in high quality liquid assets according to the Cash and Investment Management Policy.~~

### ~~E.1.d Model Risk~~

~~Model risk is the potential for adverse consequences from decisions based on incorrect or misused model outputs. Model risk shall be managed through OCC's model development program, independent model validation, and governance arrangements for the approval of new models or models with material changes, according to the Model Risk Management Policy.~~

### ~~E.2 Operational Risk~~

~~Operational risk is the risk that deficiencies in internal controls, processes, and information systems; human error or misconduct; external events or intrusions result in disruptions of OCC's CCP services. Operational risk covers some risks related to information technology ("IT"), such as data security and operational reliability, as well as non-IT risks such as process management and third party risk management. To reflect the importance of IT risks and the impact that an IT deficiency would have on OCC's critical services, OCC categorizes IT risk as a separate Key Risk, discussed below.~~

~~Operational risk is inherent in every aspect of OCC's daily operations and services and can manifest in multiple ways through errors in financial reporting, poor process management, inadequate physical asset security, human error or misconduct, internal or external fraud, third parties (including linked third parties) that do not perform in accordance with contractual or operational agreements, or poor business continuity planning.~~

~~OCC shall manage operational risks through the following:~~

#### ~~E.2.a Enterprise Project Management Program~~

~~The Enterprise Project Management Program shall provide initial assessments of projects originating from the Corporate Planning department and management of project execution to ensure that proper oversight exists during the initiation, planning, execution and delivery of OCC enterprise projects, according to the Annual Planning Policy.~~

#### ~~E.2.b Business Continuity Program~~

~~OCC's Business Continuity Program ("BCP") shall support continuance of critical services in the unlikely event of catastrophic loss of both infrastructure and staff at OCC locations in Illinois or Texas, according to the Incident Response and Recovery Policy. The program shall include a Crisis Management Plan, which outlines OCC's processes for decision making in crisis or emergency circumstances.~~

#### ~~E.2.c Third Party Monitoring Program~~





## Risk Management Framework Policy

---

OCC's critical clearing, settlement, and risk management services are dependent on contractual relationships and operational arrangements with key third parties, including settlement banks, linked FMUs and exchanges, and critical vendors. OCC shall manage the risks posed by these interdependencies through a comprehensive third-party risk management program, which includes requirements for onboarding and ongoing monitoring of these entities. OCC conducts monitoring of these entities in several areas of the organization, including National Operations, Collateral Services, Credit Risk, Finance and ERM. The third-party monitoring program is outlined in the Third-Party Risk Management Framework. Policies that govern the risk management of third parties include the Third-Party Risk Management Framework, the Trade and Position Processing Policy, and the Annual Planning Policy.

### E.2.d Human Resources and Compliance Training Policies

OCC shall provide internal training and permit employees to attend external training classes in order to improve their professional and technical skills. The Human Resources department shall provide training and development for all OCC staff for the purpose of providing staff tools to develop and maintain the necessary knowledge and skills to perform their jobs. The Compliance Department shall conduct training on the Code of Conduct. A description of these programs is contained in Organizational and Employee Assistance Procedure.

### E.3 Operational Risk—Information Technology

Information technology risk is the risk that inadequate levels of system functionality, confidentiality, integrity, availability, capacity or resiliency for systems that support core clearing, settlement or risk management services, or other critical business functions results in disruptions in OCC services.

Information technology risk is a form of operational risk. As noted above, because technology is a large and critical component of operational risk at OCC, to which significant resources are devoted, OCC identifies IT risk as a separate Key Risk. OCC is subject to SEC Regulation Systems Compliance and Integrity ("Reg SCI"), and OCC's policies and procedures for managing IT risks shall be designed to be compliant with Reg SCI.

OCC shall manage IT operational risks through the following:

#### E.3.a Quality Standards Program

OCC's quality standards shall be targets set annually by the Quality Standards Working Group that establish performance standards for systems operations. The standards shall be grouped by three categories: (i) data integrity, (ii) system availability and (iii) data timeliness. The quality standard program, including a description of how targets are established and monitored, is outlined in the Quality Standards Procedure.



## Risk Management Framework Policy

---

### E.3.b Cybersecurity Program

~~OCC's cybersecurity program shall be based on the industry standard National Institute of Standards and Technology cybersecurity framework, which includes policies, procedures, software tools and controls to protect and monitor OCC's critical services and respond to threats to assure critical services are operating within expected timeframes, according to the Information Security policies and procedures.~~

### E.3.c System Functionality and Capacity—Critical Reg SCI Systems

~~OCC shall classify technology systems in accordance with Reg SCI. OCC shall conduct system monitoring, incident management, change management, configuration management, media protection, maintenance, delivery processes and capacity testing in accordance with Reg SCI criticality designations and the IT Operational Risk Management Policy.~~

### E.4 Legal Risk

~~Legal risk is the risk that OCC does not have a well-founded, clear, transparent and enforceable legal basis for the material aspects of its clearing, settlement and risk management services. OCC shall manage legal risk through the following:~~

#### E.4.a Regulatory Compliance

~~As a self-regulatory organization, OCC's rules and policies establish the legal basis for the material aspects of its clearing, settlement and risk management services. OCC shall maintain rules that are compliant with Delaware state law, and policies and procedures that are reasonably designed to comply with applicable regulations related to OCC's requirements as a SIFMU, covered clearing agency and DCO, according to the Compliance Risk Policy, Legal Services Policy and Regulatory Change Identification Procedure.~~

#### E.4.b Contracts

~~In addition to rules, policies and procedures, OCC shall maintain legal agreements that establish counterparty obligations regarding the material aspects of its clearing, settlement and risk management services, including, but not limited to: settlement finality, vendor performance, exchange performance, the settlement of certain physically settled stock options and single stock futures, and cross-margining obligations, in accordance with the Material Agreements Policy.~~

### E.5 General Business Risk

~~General business risk is the risk of any potential impairment of OCC's financial condition (as a business concern) owing to declines in revenue or growth in expenses, resulting in expenses exceeding revenues and a loss that must be charged against capital. These risks arise from OCC's administration and operation as a business enterprise, and are not related~~



## Risk Management Framework Policy

---

to a Clearing Member default or failure of a counterparty to perform its obligations to OCC, as described in Section E.1 above. OCC shall manage general business risk as follows:

### E.5.a Capital Management Policy

OCC shall maintain a Capital Management Policy detailing the principles used to determine, monitor and manage OCC's capital levels such that OCC maintains sufficient liquid net assets funded by equity ("LNAFBE") to cover potential general business losses and continue operations and services as a going concern if losses materialize under a range of scenarios, including adverse market conditions. The Capital Management Policy shall provide that OCC shall set a Target Capital Requirement at a level sufficient to maintain LNAFBE at least equal to the greater of: (x) six months of OCC's current operating expenses, (y) the amount determined by the Board to be sufficient to ensure a recovery or orderly wind-down of critical operations and services, and (z) the amount determined by the Board to be sufficient for OCC to continue operations and services as a going concern if general business losses materialize. The Capital Management Policy shall provide that the resources held to meet the Target Capital Requirement shall be separate from OCC's resources to cover participant defaults and liquidity shortfalls and shall be of high quality and sufficiently liquid to allow OCC to meet its current and projected expenses under a range of scenarios, including adverse market conditions. In addition, the Capital Management Policy shall include a plan to replenish OCC's capital in the event losses unrelated to a Clearing Member default cause OCC's shareholders' equity to fall close to or below the Target Capital Requirement.

### E.5.b Corporate Planning and Budgeting

To maintain stable revenues and expenses, OCC shall conduct corporate strategic planning, business planning, budgeting, project management and new business development in accordance with the the Annual Planning Policy.

### E.5.c Reputational Risk

Events that negatively impact OCC's reputation have the potential to negatively impact business results. Events that negatively impact reputation can arise from many sources including employee wrongdoing, operational disruptions and regulatory sanctions. To mitigate against employee wrongdoing, OCC employees shall abide by OCC's Code of Conduct.

## **F. Risk Management Practice**

### F.1 Three Lines of Defense

To maintain a robust risk management framework, OCC shall employ a "three lines of defense" model. The purpose of this model shall be to allow OCC to manage risks with



## Risk Management Framework Policy

---

clarity of ownership and accountability, and to provide for independent evaluation of the effectiveness of risk management activities.

The first line of defense shall be comprised of OCC's operational business units, including financial risk management, operations, technology, legal, and corporate functions such as human resources, finance, accounting, and project management. The first line of defense shall be responsible and accountable for owning and managing risks, which means maintaining policies, procedures, processes and controls that manage relevant risks. The first line of defense shall also own and be accountable for maintaining internal controls, control self-testing and implementing corrective action to address control deficiencies.

The first line of defense shall be supported and monitored by the second line of defense, which shall consist of ERM, the Model Validation Group, Security Services and Compliance. The second line of defense is an oversight function and shall design, implement, and maintain an enterprise-wide risk management and compliance program and tools to assess and manage risk and compliance at the enterprise level. The second line of defense shall work with the first line of defense to assess risk and advise the first line on the development of policies, procedures, processes and controls. The second line of defense shall report to the Management Committee and Board (or committee thereof) on the first line of defense's effectiveness in managing risk and compliance and an assessment of whether OCC's services are being delivered within Risk Appetite Statements and Risk Tolerances as established in accordance with Section C above.

The third line of defense shall consist of the Internal Audit department ("Internal Audit"). Internal Audit, which reports directly to the Audit Committee of the Board, shall be accountable for designing, implementing and maintaining a comprehensive audit program that provides the Management Committee and Audit Committee of the Board an independent and objective assurance that the quality of OCC's risk management and compliance meets OCC's Risk Appetite Statements and Risk Tolerances, as established in accordance with Section C above, and business imperatives. Internal Audit shall maintain a diverse and skilled team of professionals with a variety of business, technology and audit skills, and shall perform all of its activities in compliance with the Institute of Internal Auditors' standards found in the International Professional Practices Framework and according to the Internal Audit Policy.

### F.2 Risk Assessment

OCC shall conduct the risk identification and assessment programs described below to identify, measure and monitor current and emerging risks at OCC. Findings or recommendations that result from the assessments, as well as the frequency of such assessments, shall be documented, monitored and escalated through the appropriate governance according to applicable procedures.

#### F.2.a. Enterprise Risk Assessment and Scenario Analysis Program



## Risk Management Framework Policy

---

The Enterprise Risk Assessment ("ERA"), conducted by the first line of defense in conjunction with ERM, shall be OCC's comprehensive foundational assessment program, and shall analyze Inherent Risk, quality of risk management and Residual Risk of the sub-categories of Key Risks (provided in the Appendix to this Policy). ERM shall use analysis of Residual Risk in conjunction with metrics related to Risk Tolerances to develop a risk profile and determine whether a Key Risk is within its risk appetite in accordance with Section C above. ERM's analysis of Residual Risk shall also provide the Management Committee and Board (or committee thereof) information on quantity of risk in a certain functional area or business area, and provide a mechanism to prioritize risk mitigation activities. The ERA program is described in the Enterprise Risk Assessment Procedure.

OCC shall employ the Scenario Analysis Program, an industry standard method of identifying operational risks that may not be otherwise captured by the ERA program. ERM, in cooperation with the first line of defense, shall design simulations of potential business disruptions, and business unit staff shall use such simulations to identify risks that may not have been previously uncovered or identify weaknesses in current controls. ERM shall include potential risks identified through the Scenario Analysis Program in its analysis of, and reporting on, the quantity of risk within a certain Key Risk and whether the Key Risk is within its risk appetite. The Scenario Analysis Program is described in the Scenario Analysis Procedure.

### F.2.b. IT Risk Assessments

IT risk assessments ("ITRA") shall be conducted by Security Services prior to the procurement, development, installation and operation of IT services and systems. An ITRA shall be triggered by certain events that may change IT risks at OCC, including but not limited to: (i) evaluation of a new system or technology, (ii) procurement of a new system or technology, (iii) changes in OCC business processes that impact current services and systems, (iv) the emergence of new threats that subvert existing controls and that require a new technology mitigation, and (v) periodic reviews. The ITRA process, including roles and responsibilities for monitoring and review, is described in the Cyber Risk Assessment Procedure.

### F.2.c Compliance Risk Assessment

OCC's Compliance Risk Assessment program is performed by the Compliance Department and shall be used to identify and measure risks that OCC faces regarding regulatory compliance in accordance with the Compliance Risk Assessment Procedure. The program shall also provide the Compliance Department a basis for prioritizing testing and training activities.

### F.3 Risk Reporting



## Risk Management Framework Policy

---

~~ERM shall complete a review and reporting process, as described below, that provides the Management Committee and Board (or committee thereof) with the information necessary to fulfill their obligations for risk management and oversight of risk management activities, respectively. Risk reporting shall assist the Management Committee and Board (or committee thereof) in understanding the most significant risks OCC faces from a process perspective and determining whether Risk Tolerances are being managed in accordance with Risk Appetite Statements. On at least a quarterly basis, ERM shall publish a risk report with a summary analysis of risk appetite and risk profile that includes, but is not limited to: (i) analysis of Residual Risks from the ERA program, (ii) reporting on Risk Tolerances and (iii) recommendations for prioritization of risk mitigation activities.~~

~~The processes for determining whether a risk is within appetite and for escalation in the event of a tolerance breach are described in the Enterprise Risk Assessment Procedure.~~

### ~~G. Control Activities~~

~~The Compliance Department shall maintain an inventory of all business processes and associated controls in a database used by OCC to manage Enterprise Governance, Risk and Compliance. OCC shall also use a Control Writing Guide to assist staff throughout OCC to document their control activities in a consistent way.~~

~~No less than annually, the Compliance Department shall conduct training to assist staff in understanding their respective responsibilities in implementing OCC's risk and control environment.~~

### ~~III. POLICY EXCEPTIONS~~

~~Any request for an exception to this Policy must be made in writing to a member of the Office of the Executive Chairman, who is then responsible for reviewing the exception request and providing a decision in writing to the person requesting the exception. The Chief Risk Officer, Chief Compliance Officer or Chief Audit Executive may also request an exception to the Policy to the Board or delegated Board committee. All requests for exceptions and their dispositions shall be reported to the Board or relevant Board committee no later than its next regularly scheduled meeting, in a format approved by the Chair of the Board or Board committee.~~

### ~~IV. POLICY VIOLATIONS~~

~~Violations of this Policy must be reported to OCC's Chief Compliance Officer, or, if the violation involves the Compliance Department, to the head of Chief Audit Executive or a member of the Office of the Executive Chairman.~~

### ~~V. DEFINITIONS~~



## Risk Management Framework Policy

---

~~Capitalized terms used herein and not defined below shall have the meaning set forth in OCC's By-Laws and Rules.~~

~~**Inherent Risk:** The absolute level of risk exposure posed by a process or activity prior to the application of controls or other risk-mitigating factors.~~

~~**Key Risk:** Risk that is related to the foundational aspects of CCP clearing, settlement, and risk management services.~~

~~**Residual Risk:** The level of risk exposure posed to a process or activity after the application of controls or other risk-mitigating factors.~~

~~**Risk Appetite Statement:** A statement that expresses OCC's judgment, for each of OCC's Key Risks, regarding the level of risk OCC is willing to accept related to the provision of CCP services.~~

~~**Risk Tolerance:** The application of risk appetite to a specific sub-category or aspect of a Key Risk, typically in quantitative form, used to set an acceptable levels of risk.~~

**APPENDIX: OCC'S KEY RISKS WITH CCA, PFMI AND REG SCI MAPPING**

<b>Key Risk</b>	<b>Sub-category</b>	<b>Definition</b>	<b>Relevant Policy</b>
<b>Financial</b> —risk that a counterparty will be unable to meet its obligations when due, the risk that OCC will not maintain sufficient financial resources to cover exposures, the risk that OCC will not meet payment obligations when due, the risk that OCC will incur losses on overnight investments, and the risk that financial models are inaccurate	Credit (P4, P5, P6, P13, P16) 17Ad-22(e)(4),(e)(5), (e)(6),(e)(13)	Risk that a counterparty will be unable to meet its obligations when due or that OCC will not maintain sufficient financial resources to cover credit exposures	Clearing Fund Methodology Policy  Collateral Risk Management Policy  Third-Party Risk Management Framework  Default Management Policy  Margin Policy
	Liquidity (P7) 17Ad-22(e)(7)	Risk that OCC will not maintain sufficient liquid resources to meet its same-day and, where appropriate, intraday and multiday settlement of payment obligations	Liquidity Risk Management Framework  Cash and Investment Management Policy  Third-Party Risk Management Framework
	Investment (P-16) 17Ad-22(e)(16)	Risk of losses on overnight investments	Cash and Investment Management Policy





## Risk Management Framework Policy

Key Risk	Sub-category	Definition	Relevant Policy
	Model (P2, P4, P6) (Supervisory Letter SR 11-7)	The potential for adverse consequences from decisions based on incorrect or misused model outputs.	Model Risk Management Policy
<b>Operational</b> —risk that deficiencies in internal controls, processes, information systems; human error or misconduct; external events or intrusions result in disruptions of OCC’s CCP services  17Ad22(e)(17) 17Ad22(e)(20)	Financial Reporting & Control (P17)	Risk that material inaccuracies in financial reporting as a result of lack of internal controls results in providing inaccurate financial data to key stakeholders	Department Policies, Procedures, Handbooks
	Process Management, Execution & Delivery (P17)	Risk that inadequate process and control management negatively impact effective daily operations, resulting in poor operational performance and policy/procedure deviations	
	Physical Asset Security (P17)	Risk of harm, damage, or loss to OCC property, equipment, or personnel, resulting in operational disruption, financial losses, or legal liability	



## Risk Management Framework Policy

Key Risk	Sub-category	Definition	Relevant Policy
	Human Capital (P17)	Risk that employees are not sufficient, qualified or well-trained, resulting in errors, control failures, or fraud	
	Business Continuity (P17)	Risk that OCC is unable to recover critical services following a disruption	Incident Response and Recovery Policy
	Fraud (P17)	Risk that an employee or external party commits fraud, resulting in financial loss to OCC	Code of Conduct
	Third-Party Performance (P20, P17)	Risk that OCC will experience service disruptions due to operational issues with critical vendors, exchanges, or other FMUs	Third-Party Risk Management Framework
<b>Operational Risk— Information Technology</b> —risk that inadequate levels of system functionality, confidentiality, integrity, availability, capacity, or resiliency for systems that support core clearing,	Functionality & Delivery (SCI Rule 1001a) (P17) (SCI Rule 1000, Rule 1001a) (P17)	Risk that defects in system change management processes, whether related to system upgrades or expansions, cause operational disruptions	IT Operational Risk Management Policy
	Confidentiality (SCI Rule 1001a) (P17)	Risk that OCC confidential information is disclosed to unauthorized parties	Information Security Policies
	Integrity	Risk that OCC data or systems are accessed, modified,	Information Security



## Risk Management Framework Policy

Key Risk	Sub-category	Definition	Relevant Policy
settlement, or risk management services or critical business functions results in disruptions in OCC services  17Ad-22(e)(17)	{SCI Rule 1001a} (P17)	or otherwise tampered with by unauthorized parties	Policies
	Availability (System & Data) (SCI Rule 1001a) (P17)	Risk that OCC stakeholders are unable to access information when needed	IT Operational Risk Management Policy
	Capacity (SCI Rule 1001a) (P17)	Risk that OCC will experience an increase in trade volume that reduces critical or SCI systems' processing capacity below acceptable standards	IT Operational Risk Management Policy
	Resiliency (SCI Rule 1001a, Rule 1002, Rule 1004) (P17)	Risk that an event causes critical or SCI system disruptions beyond OCC's recovery time standard	IT Operational Risk Management Policy
<b>Legal</b> —risk that OCC does not have a well-founded, clear, transparent, and enforceable legal basis for the material aspects of its	Regulatory Compliance (P1)	The risk that OCC's by-laws, rules, policies and procedures do not provide for a well-founded, clear, transparent, and enforceable legal basis for each aspect of its activities in all relevant jurisdictions	Legal Services Policy Compliance Risk Policy Regulatory Change Identification Procedure



## Risk Management Framework Policy

Key Risk	Sub-category	Definition	Relevant Policy
clearing, settlement, and risk management services 17Ad22-(e)(1)	Rights, interests, enforceability (P1)	The risk that OCC's and members' rights to collateral, netting arrangements, settlement finality, or novation rights are not clearly established or that rules and contracts are not enforceable	Material Agreements Policy
<b>General Business</b> — risk of any potential impairment of OCC's financial condition (as a business concern) owing to declines in its revenue or growth in its expenses, resulting in expenses exceeding revenues and a loss that must be charged against capital. These risks arise from OCC's administration and operation as a business enterprise.	Business strategy (P15)	The risk that OCC does not properly manage business strategy, resulting in decline in revenue or increase in expenses	Annual Planning Policy
	Going concern assets (P15)	The risk that OCC does not maintain sufficient high quality liquid assets to remain a going concern after business losses	Capital Management Policy
	Capital replenishment (P15)	The risk that OCC does not have a plan to raise additional capital if levels fall below a required amount	Capital Management Policy
	Reputation (P15)	The risk that OCC's reputation is damaged as a result of operational failure, businesses losses, or any other reason, resulting in loss of business and/or regulatory scrutiny	Code of Conduct
	Governance	The risk that OCC does not have proper governance in place of all aspects of OCC services, resulting in	Department Policies



## Risk Management Framework Policy

---

Key Risk	Sub-category	Definition	Relevant Policy
<del>They are not related to participant default</del> <del>17Ad-22(e)(15)</del>	<del>(P15)</del>	<del>business losses from any source</del>	