

Recommendations for Supporting Clearing Member Due Diligence of Central Counterparties

February 05, 2013

The Payments Risk Committee is a private sector group, sponsored by the Federal Reserve Bank of New York, which includes senior managers from several major banks in the United States. The Committee identifies and analyzes issues of mutual interest related to risks in payment, clearing, and settlement systems. Where appropriate, the Committee seeks to foster broader industry awareness and discussion and to develop input on public and private sector initiatives. The current members of the Committee are Bank of America , The Bank of New York Mellon, Bank of Tokyo-Mitsubishi UFJ, Citibank , Deutsche Bank, Goldman Sachs, HSBC Bank USA, JP Morgan Chase, Morgan Stanley, State Street Bank and Trust Company, UBS, and Wells Fargo.

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FOREWARD

In 2012 the Payments Risk Committee (PRC), in partnership with a group of leading international central counterparties (CCPs), began to discuss ways to improve the transparency of risk management practices of central counterparties (CCPs) as part of their periodic reporting to clearing members. This reporting is essential to help banks, as clearing members, conduct necessary due diligence and manage the risks they face as participants in such financial market infrastructures.

On behalf of the PRC, we are pleased to provide the results of this initiative—**Recommendations for Supporting Clearing Member Due Diligence of Central Counterparties**. The release of this work to the public demonstrates the importance to the PRC and participating CCPs of ensuring adequate information flows to banks that are direct members of these financial market infrastructures.

Transparency of risk management information improves the ability of clearing members to measure, monitor, and assess their exposures to and activities with CCPs, further supporting a more stable overall financial system. Enhanced risk reporting measures strengthen the dialogue between clearing members and CCPs, which, in turn, helps ensure greater market discipline. As details underpinning clearinghouse rules and practices are shared with clearing members, improved risk management decision making and a better appreciation of the tradeoffs between collateral/margining costs and risk management safeguards are expected to ensue.

The PRC-CCP study group meetings have been characterized by candid interaction among risk management practitioners from both PRC member firms and clearinghouses. We hope this partnership will continue as the participating CCPs further enhance their risk reporting processes to support the recommendations in the document. In a number of cases, participating CCPs may need to allocate incremental resources and introduce new data compilation approaches to meet the recommendations in the report. We envision that the study group will continue to meet to help guide this evolution. The recommendations as outlined in the document are likely to be improved and become more operational as additional dialogue occurs and as regulatory guidance is received.

The ultimate goal is that clearing member banks will not only have the tools and data necessary to better evaluate specific risks that they face, but that in so doing all market participants will better understand the unique and critically important role played by the CCPs, enabling potential systemic risks to be addressed before they have the opportunity to surface.

The report was prepared by eight work streams addressing CCPs governance, initial margin and guaranty fund composition, collateral structure, investment balances and policy, evaluation and monitoring of clearing members, initial margin and guaranty fund methodology, default procedures and legal opinions

related to centrally cleared transactions. Particular acknowledgement is due to the excellent contributions of each of the workstream leaders. The PRC also recognizes the contributions of the PRC Secretariat staff of the Federal Reserve Bank of New York, without which this report would not have been possible.

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Recommendations for Supporting Clearing Member Due Diligence of Central Counterparties

Payments Risk Committee

Executive Summary

PRC member banks participate in key central counterparties (CCPs) across the globe. It is essential that the financial institutions that participate in and rely on CCPs are able to conduct effective due diligence to understand the risks they face as members and take appropriate steps to mitigate those risks. Transparency of key information about CCP risk management practices is fundamental in enabling financial market participants to perform appropriate due diligence. PRC member banks, however, have noted significant differences among CCPs in both the content and form of risk management information that is currently provided to clearing members. In light of the increasingly important role of CCPs, PRC members have developed a growing interest in improving their ability to manage risks arising from participation in such infrastructures.

In July 2011, the PRC submitted a comment paper to CPSS-IOSCO on the consultative report, *Principles for financial market infrastructures*.¹ After submitting the letter, the committee decided to pursue work examining CCP risk management practices and subsequently decided that this topic could be explored better by talking directly with CCPs. In February 2012, the PRC hosted a roundtable discussion to bring together representatives of eight CCPs and PRC members, providing a useful opportunity for participants to share information on risk management practices and issues, as well as to explore additional topics of mutual interest.

There was broad support for the notion that a CCPs reporting of risk management practices is fundamental to enabling participants to perform appropriate internal due diligence. Performing adequate internal due diligence allows participants to understand the risks they face as clearing members. Participants discussed the potential value in developing a common framework that would improve the due diligence processes of bank clearing members. Subsequently, interested PRC members and CCP representatives formed a study group to work towards such a common framework to achieve greater consistency in the reporting of risk management practices to clearing members and to improve participants' ability to conduct their own due diligence and risk assessments. The resulting framework is also intended to help streamline and standardize the information that CCPs provide to their clearing members, reducing reporting burdens and ad hoc information requests.

PARTICIPATION

The study group included representatives of PRC member banks and eight CCPs: the CME Group, the Depository Trust & Clearing Corporation, ICE Clear Credit, ICE Clear Europe, ICE Clear US, Eurex Clearing, LCH.Clearnet Ltd, and the Options Clearing Corporation. In addition to Federal Reserve staff, staff from domestic and foreign regulators of participating CCPs served as observers for this project. These

¹ The final Principles for Financial Market Infrastructures were released by CPSS-IOSCO in April of 2012. Subsequently, CPSS-IOSCO released a final disclosure framework and assessment methodology in December 2012. <http://www.bis.org/publ/cpss101.htm>

included staff from: Bank of England, Deutsche Bundesbank, European Central Bank, German Federal Financial Supervisory Authority, U.K. Financial Services Authority, U.S. Commodity Futures Trading Commission, and U.S. Securities and Exchange Commission.

OVERVIEW OF TOPICS

The study group has developed templates that cover eight topics associated with CCP risk management practices. Any common observations or conclusions drawn by the PRC banks from this work may serve as a helpful reference for CCPs and the industry more broadly. A description of the rationale and purpose of each topic is included with each recommended template. In addition, each template includes suggested instructions on how to complete it, including the recommended frequency and audience for disclosure.

- | | |
|--|---|
| A. Governance | E. Evaluation/Monitoring of Clearing Members |
| B. Composition/Value of Initial Margin and Guaranty Fund | F. Initial Margin/Guaranty Fund Methodologies |
| C. Collateral Structures | G. Default Procedures |
| D. CCP Investment Balances and Policy | H. Legal Opinions |

The recommendations communicated through this report do not necessarily represent policies of the institutions represented or views of the Federal Reserve System or of the other regulatory agencies that participated with observer status.

The report sets forth recommended practices only. While these recommendations are intended to complement existing legal and regulatory requirements on disclosure and reporting, nothing herein creates additional or binding obligations on any CCP, clearing member, or other entity. Adherence to any guideline, practice, or principle described in this document is strictly voluntary. Unless otherwise noted, references herein to "requirements" mean the rules and procedures adopted by the relevant CCP and binding on its clearing members rather than any applicable legal or regulatory requirement.

Topic A: Governance

1. Rationale/Purpose: Governance of CCPs is an important consideration to ensure that the necessary framework is in place to promote effective clearing member due diligence. In this context, the Board of Directors, the Board Risk Committee and non-Board Level Risk Management/Risk Advisory Committees (if incorporated as part of CCP governance) each play important roles.

2. Instructions and Suggested Frequency/Audience for Disclosure: The matrix below delineates the information that should be disclosed publicly (e.g., on CCP websites) versus to clearing members only (on a confidential basis). Moreover, CCP Boards and/or Risk Committees are encouraged to identify risk management issues discussed as part of Board and/or Risk Committee agendas that should be shared with the public or, if of a sensitive nature, to risk management staff of CCP members/participants.³ The template should be updated by CCPs on an annual basis as a minimum or as needed to reflect significant changes to their governance arrangements.

* * * * *

GOVERNANCE – RELATED INFORMATION	Board	Board Risk Committee	Other (non-Board) Risk Advisory/Management and/or Default Management Committees⁴
Committee roles and responsibilities: <ul style="list-style-type: none"> • Chart identifying committees • Cross reference with committee role and responsibilities identified in charter (to be provided) • Number of “independent” directors (e.g., those who are not clearing member employees) 	Public	Public	Public
Composition of participants (affiliations), nomination process and requirements	Public	Public	Public
Frequency/minimum number of meetings per annum	Public	Disclosure to all clearing members	Disclosure to all clearing members
Location of disclosure	Public website	Intranet disclosure to members	Intranet disclosure to members

³ Clearing member employees who serve as CCP directors are acting as fiduciaries of the CCPs.

⁴ Some CCPs may elect to establish non-Board advisory bodies to provide expert risk management input to the CCP management. For those CCPs that do not create such bodies, this column would not be applicable.

Topic B: Initial Margin and Guaranty Fund Composition

1. Rationale/Purpose: The purpose of this template is to facilitate clearing member assessment of the composition of a CCP's initial margin and guaranty fund via periodic CCP reporting per a standardized approach. The requested information covers four broad categories: (1) Initial Margin; (2) Guaranty Fund; (3) Posted Collateral Detail; and (4) Collateral Concentration Metrics.
2. Instructions and Suggested Frequency/Audience for Disclosure: The template consists of (a) a brief summary of the specific information requested and the rationale for the request, (b) an aggregate CCP data input sheet and (c) a member specific-level CCP data input sheet. The CCP should populate the aggregate CCP sheet monthly and send it to all clearing members. The CCP should also populate the member specific sheet monthly and only provide this member-specific sheet to the relevant member. One sheet should be filled out for EACH clearing member within a family.⁵

It is expected that the information below be provided directly to the risk management functions within the clearing member's organization; the information is NOT to be further shared with business units of clearing member firms.

Unless otherwise indicated, pre-haircut market values should be used where possible. In addition, please note that the category of sovereign debt/government securities includes investments in Treasuries, securities issued by ministries of finance/central banks, investments in units of government stabilization funds, exchange authorities, diplomatic establishments as well as international and/or regional multilateral organizations (i.e., IMF, IBRD, Inter-American Development Bank).

* * * * *

⁵ CCPs should include their definition of "family" for clarity.

(a) Summary of Data Requested and Rationale for Request	
Initial Margin*	
Aggregate CCP Level Data	Total collateral posted/Total collateral required: <i>Allows the clearing member to verify CCP is collecting sufficient margin</i>
	Total house collateral required (if not available, indicate N/A): <i>Measures how much risk the CCP has to its clearing members</i>
	Total customer collateral required (if not available, indicate N/A): <i>Measures how much risk the CCP has to clearing members' customers</i>
Clearing Member Level Data	Total collateral posted/Total collateral required
	Member's house collateral posted (if not available, indicate N/A): <i>Measures collateral at risk</i>
	Member's house collateral required (if not available, indicate N/A): <i>Measures how much risk the clearing member is contributing to the CCP</i>
	Member's customer collateral posted (if not available, indicate N/A): <i>Measures collateral at risk for a clearing member's customers</i>
	Member's customer collateral required (if not available, indicate N/A): <i>Measures how much risk the clearing member's customers are contributing to the CCP</i>
<p>*NOTE ON COLLATERAL REQUIRED: Members are requesting a breakdown of the collateral requirement into 3 (or more) buckets: Base Position Required; Risk Add-ons (concentration margin, credit quality surcharge, etc.) and Retained MTM/NPV Offset. Risk Add-on disclosure is important to the clearing members, however, if Risk Add-ons are not applicable (because they are intrinsic to the margin models) or if a CCP feels the disclosure is too sensitive to disclose then indicate N/A.</p>	
Guaranty Fund**	
Aggregate CCP Level Data	Total collateral posted: <i>Allows members to verify CCP is collecting sufficient funds</i>
	Total collateral required (funded): <i>Allows members to review sufficiency of default fund</i>
	Total collateral required (unfunded): <i>Allows members to review sufficiency of available default resources</i>
Clearing Member Level Data	Member's collateral posted: <i>Measures collateral at risk</i>
	Member's collateral required (funded): <i>Allows member to ascertain how much risk the member is contributing to the CCP</i>
	Member's collateral required (unfunded): <i>Allows member to measure contingent risk to CCP</i>
<p>**NOTE ON GUARANTY FUND: An unfunded requirement represents the value of the CCP's standard/contractual assessment power to cover ONE or multiple default(s), in compliance with existing international standards: specify standard used, for example cover 1 or cover 2.</p>	

Posted Collateral Detail	
Aggregate CCP Level Data	Detailed breakdown of posted collateral by member for both Initial Margin and Guaranty Fund: <i>Allows members to form a view on overall liquidity of the CCPs financial safeguards</i>
Clearing Member Level Data	Detailed breakdown of posted collateral for both Initial Margin and Guaranty Fund: <i>Allows member to form a view on the overall liquidity of the financial backing it provides to the CCP</i>
Concentration Metrics⁶	
Aggregate CCP Level Data	CCP home currency value (e.g., USD, Euro, GBP) of the top 3 member family contributions to Initial Margin: <i>Measures concentration risk at the CCP</i>
	CCP home currency value (e.g., USD, Euro, GBP) of top 3 member family contributions to the Guaranty Fund: <i>Allows members to verify risk concentration is supported by Guaranty Fund postings</i>
	Count of member families with x% of IM: <i>Allows members to get a better sense for the distribution of risk across the CCP</i>

Please see data input sheets (b) and (c) below.

⁶ This disclosure is important for clearing members’ risk management. Members acknowledge that a CCP may choose not to disclose any or all of this information due to concerns over market sensitivity.

(b) Aggregate CCP Data Input Sheet

This information is provided exclusively for the use of a clearing member's internal risk management and should not be shared with other areas of the firm. This sheet should be populated by the CCP and distributed to all clearing members. CCP populates one sheet for each Clearing Service/ Guaranty Fund (where applicable).

Reporting Date
 Indicate if Market Value or Haircut Value

Initial Margin*

House Collateral Required	
<i>Base position IM requirement</i>	
<i>Risk add-ons (Total)**</i>	
Add-on1	
Add-on2	
Add-on3	
Add-on4	
Other	
Retained MTM/ (NPV Offset)	
Customer Collateral Required	
<i>Base position IM requirement</i>	
<i>Risk add-ons (Total)</i>	
Add-on1	
Add-on2	
Add-on3	
Add-on4	
Other	
Retained MTM/ (NPV Offset)	
Total Collateral REQUIRED	
TOTAL Collateral POSTED	

Concentration Measures

IM required for top 3 members**	
Guaranty Fund required for top 3 members**	
# of Members w/ x% of IM Requirement**	
More than 20%	
15% to 20%	
10% to 15%	
5% to 10%	
Less than 5%	

* The CCP may decide to provide an aggregate IM (not split out by customer/ house) if the breakdown could reveal sensitive market information (e.g., for small/newly established clearing funds).
 ** This disclosure may not be provided if the CCP considers the data sensitive.

Guaranty Fund

Total Guaranty Fund Required (funded)	
Total Guaranty Fund Required (unfunded)	
Guaranty Fund Posted	

Initial Margin POSTED Collateral Breakdown

Cash	
Local Currency	
USD	\$ -
EUR	\$ -
GBP	\$ -
Other G7	\$ -
Non-G7	\$ -
<hr/>	
Securities	
<i>Sovereign Government Bonds</i>	
Local/ domestic	\$ -
UST	\$ -
Other G7	\$ -
Other Non G7	\$ -

Guaranty Fund POSTED Collateral Breakdown

Cash	
Local Currency	
USD	\$ -
EUR	\$ -
GBP	\$ -
Other G7	\$ -
Non-G7	\$ -
<hr/>	
Securities	
<i>Sovereign Government Bonds</i>	
Local/ domestic	\$ -
UST	\$ -
Other G7	\$ -
Other Non G7	\$ -

<i>Agency Bonds</i>	
Local/ domestic	\$ -
Other G7	\$ -
Other Non G7	\$ -
	\$ -
<i>State/Muni Bonds</i>	
Local/ domestic	\$ -
Other G7	\$ -
Other Non G7	\$ -
<i>Equities</i>	
Major Index Listed	\$ -
Other	\$ -
<i>Corporates</i>	
A- or better	\$ -
BBB+/BBB/BBB-	\$ -
BB+ or bower	\$ -
Unrated	\$ -
Other	\$ -
<i>LOC</i>	\$ -
<i>Commodities</i>	
<i>Gold</i>	\$ -
<i>Oil & Gas</i>	\$ -
<i>Softs</i>	\$ -
Total	\$ -

<i>Agency Bonds</i>	
Local/ domestic	\$ -
Other G7	\$ -
Other Non G7	\$ -
	\$ -
<i>State/Muni Bonds</i>	
Local/ domestic	\$ -
Other G7	\$ -
Other Non G7	\$ -
<i>Equities</i>	
Major Index Listed	\$ -
Other	\$ -
<i>Corporates</i>	
A- or better	\$ -
BBB+/BBB/BBB-	\$ -
BB+ or lower	\$ -
Unrated	\$ -
Other	\$ -
<i>LOC</i>	\$ -
<i>Commodities</i>	
<i>Gold</i>	\$ -
<i>Oil & Gas</i>	\$ -
<i>Softs</i>	\$ -
Total	\$ -

(c) Member Specific Data Input Sheet

This information is provided exclusively for the use of a clearing member's internal risk management and should not be shared with other areas of the firm. This sheet should be populated by the CCP for each clearing member within a clearing family.

Clearing Member	e.g., Clearing Member 1
Clearing Service/ Guaranty Fund	e.g., Futures, OTC
Reporting Date	mm/dd/yy
Indicate if Market Value or Haircut Value	e.g., MV

Initial Margin

House Collateral Required	
<i>Base position IM requirement</i>	
<i>Risk add-ons (Total)</i>	
Add-on1	
Add-on2	
Add-on3	
Add-on4	
Other	
<i>Retained MTM/ (NPV Offset)</i>	
Customer Collateral Required	
<i>Base position IM requirement</i>	
<i>Risk add-ons (Total)</i>	
Add-on1	
Add-on2	
Add-on3	
Add-on4	
Other	
<i>Retained MTM/ (NPV Offset)</i>	
Total Collateral REQUIRED	
House Collateral Posted	
Customer Collateral Posted	

Guaranty Fund

Guaranty Fund Required (funded)	
Total Guaranty Fund Required (unfunded)	
Guaranty Fund Posted	

Initial Margin POSTED Collateral Breakdown

	House	Customer	Total
Cash			
Local Currency	\$ -	\$ -	\$ -
USD	\$ -	\$ -	\$ -
EUR	\$ -	\$ -	\$ -
GBP	\$ -	\$ -	\$ -
Other G7	\$ -	\$ -	\$ -
Non-G7	\$ -	\$ -	\$ -
Securities			
<i>Sovereign Government Bonds</i>			
Local/ domestic	\$ -	\$ -	\$ -
UST	\$ -	\$ -	\$ -
Other G7	\$ -	\$ -	\$ -
Other Non G7	\$ -	\$ -	\$ -
<i>Agency Bonds</i>			
Local/ domestic	\$ -	\$ -	\$ -
Other G7	\$ -	\$ -	\$ -
Other Non G7	\$ -	\$ -	\$ -
<i>State/Muni Bonds</i>			
Local/ domestic	\$ -	\$ -	\$ -
Other G7	\$ -	\$ -	\$ -
Other Non G7	\$ -	\$ -	\$ -

Initial Margin POSTED Collateral Breakdown (cont'd)

	House	Customer	Total
Equities			
Major Index Listed	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -

Guaranty Fund POSTED Collateral Breakdown

Cash	
Local Currency	\$ -
USD	\$ -
EUR	\$ -
GBP	\$ -
Other G7	\$ -
Non-G7	\$ -
Securities	
<i>Sovereign Government Bonds</i>	
Local/ domestic	\$ -
UST	\$ -
Other G7	\$ -
Other Non G7	\$ -
<i>Agency Bonds</i>	
Local/ domestic	\$ -
Other G7	\$ -
Other Non G7	\$ -
<i>State/Muni Bonds</i>	
Local/ domestic	\$ -
Other G7	\$ -
Other Non G7	\$ -

Guaranty Fund POSTED Collateral Breakdown (cont'd)

Equities	
Major Index Listed	\$ -
Other	\$ -

<i>Corporates</i>				
A- or better	\$	-	\$	-
BBB+/BBB/BBB-	\$	-	\$	-
BB+ or lower	\$	-	\$	-
Unrated	\$	-	\$	-
Other	\$	-	\$	-
<i>LOC</i>	\$	-	\$	-
<i>Commodities</i>				
<i>Gold</i>	\$	-	\$	-
<i>Oil & Gas</i>	\$	-	\$	-
<i>Softs</i>	\$	-	\$	-
Total	\$	-	\$	-

<i>Corporates</i>	
A- or better	\$ -
BBB+/BBB/BBB-	\$ -
BB+ or lower	\$ -
Unrated	\$ -
Other	\$ -
<i>LOC</i>	\$ -
<i>Commodities</i>	
<i>Gold</i>	\$ -
<i>Oil & Gas</i>	\$ -
<i>Softs</i>	\$ -
Total	\$ -

Topic C: Collateral Structure

1. Rationale/Purpose: Providing collateral structure information in a standard format to appropriate groups within clearing member firms allows them to assess the potential risk to their collateral (both for margin and the guaranty fund) in the event of the insolvency of a CCP. Currently, CCPs share varying levels of collateral detail to certain areas within a clearing member's organization (e.g., collateral operations). The proposed standard table will help provide appropriate risk and legal functions with a comprehensive view on collateral structure offerings.
2. Instructions and Suggested Frequency/Audience for Disclosure: The table below should be updated by CCPs on a quarterly basis. A separate table should be completed for *each* individual clearing segment⁷ within a given CCP legal entity structure, unless the information would be equivalent across product segments (e.g. same acceptable initial margin types).

It is expected that the information below be provided directly to the risk management functions within the clearing member's organization; the information is NOT to be further shared with business units of clearing member firms.

A single column is used to report client account structures, even though a CCP may offer multiple options for its own books and records: Net Omnibus (traditional US Futures model), Gross Omnibus (LSOC model), Individual Segregation (legally and operationally segregated), and Non-segregated (co-mingled with House). An assumption is being made that client-level collateral account structure at third parties would be the same regardless of the CCP's own internal account structures. Settlement banks are used as the means by which clearing members transfer cash collateral to the CCP, which maintains an account at each of its settlement banks. The CCP would then typically consolidate its cash collateral deposits in each currency with its concentration bank (one of the settlement banks).

Please note that the category of government securities includes investments in Treasuries, securities issued by ministries of finance/central banks, investments in units of government stabilization funds, exchange authorities, diplomatic establishments as well as international and/or regional multilateral organizations (i.e., IMF, IBRD, Inter-American Development Bank)

* * * * *

⁷ CCPs should include their definition of "segment" for clarity.

CCP – Segment			
	Client	House	Default Fund
Transfer of Collateral (pledge-P/title transfer-TT/both/NA if not accepted)⁸			
Cash			
Government/Agency Securities			
Equities			
Corporate Bonds/IEF 4			
Money Market Funds			
Gold			
Other Collateral Programs (Bank Deposit)			
Summary of Collateral Operational Account Structures			
Account type(s) offered (net omnibus, gross omnibus, individually-segregated and non-segregated)			
Settlement Bank Cash Account Structure - <u>complete for each settlement bank per currency and indicate currency</u>			
Names of Banks			
Name of Account/Ownership (CCP, member, member- client, or member-client omnibus)			
Segregation from settlement banks themselves (Yes/No)			
Segregated account from member assets (Yes/No)			
Segregated account from CCPs own assets (Yes/No)			
Concentration Bank⁹ Cash Account Structure - <u>complete for each concentration bank per currency and indicate currency</u>			
Names of Banks			
Name of Account/Ownership (CCP, member, member- client, or member-client omnibus)			
Segregation from concentration banks themselves (Yes/No)			
Depository Account Structure - <u>complete for each depository</u>			
Name of Depository			
List security types held by depository – Governments, Agencies, Equities, Corporate Bonds			
Is the CCP a direct or indirect participant for each security type (e.g., Corporate Bonds – D)?			

⁸ Add additional rows for other collateral types

⁹ A concentration bank is typically the lead bank the CCP selects to undertake most of its transactions and/or to aggregate its deposits in a particular currency.

CCP – Segment			
	Client	House	Default Fund
If indirect, list custodian (C) and/or tri-party agent (T) for each security type (e.g., Equities – BoNY (T))			
Name of Account/Ownership: CCP, member, member- client, or member – client omnibus			
Segregated account from custodians/tri-party agents (Yes/No)			
Gold Vault Account Structure - complete for each			
Name of Warehouse/Vault			
Name of Account/Ownership: CCP, member, member- client, or member–client omnibus			
Allocated/segregated from vault operator or unallocated/co-mingled?			
Commercial Bank Guarantees & Letters of Credit (LCs)			
Are guarantees and/or LC’s accepted? (Yes/No)			
If yes, list names of institutions			
Are guarantees accessible immediately upon default? (Yes/No)			
Other Collateral Programs – complete for each program (e.g., Bank Deposits, Emission Certificates)			
Name of collateral type/program			
List relevant depository, registry, bank, etc.			
If depository/registry, is the CCP a direct or indirect participant?			
Name of Custodians and/or tri-party agents (if indirect); note C or T with name; BoNY-T			
Name of Account/Ownership: CCP, member, member- client, or member –client omnibus			
Segregated account from custodians/tri-party agents (Yes/No)			
Summary of Collateral Usage/Investment by CCP			
List eligible assets (ratings/tenors/type) in which cash can be invested at CCP discretion. (For bonds/repos, list issuer, e.g., UST)			
Can securities be re-hypothecated? (Yes/No). If Yes, list eligible counterparties for re-hypothecation.			
If investment is made in the name of CCP, availability of operational records/bookkeeping to trace cash/ securities collateral to member/client. (Yes/No)			

Topic D: CCP Investment Balances and Policy

1. Rationale/Purpose: A CCP's investment policy governing clearing members' initial margin and guaranty fund contributions is an important component of clearing member due diligence. The template below provides greater detail on each CCP's permissible investments – such as by tenor, asset class, credit rating. Additionally, the template includes an investment summary report that provides an aggregate snapshot of investment balances and concentrations for a CCP's house initial margin collateral, its client initial margin collateral, and the guaranty fund collateral.

2. Instructions and Suggested Frequency/Audience for Disclosure:

Part 1: A CCP's responses to these questions are designed to provide an overview of its investment policy that governs posted clearing/client member collateral. The CCP Investment Policy Questionnaire disclosure should be provided to clearing members annually at a minimum (sooner if significant changes are made).

Part 2: These worksheets are designed as a means for CCPs to provide details on their specific permissible investments - by tenor, asset class, credit rating, etc. - and any related concentration limits. The CCP Investment Policy worksheets should be provided to clearing members annually.

Part 3 (a): The Investment Summary Report provides a snapshot of investment balances/concentration for House Initial Margin Collateral, Client Initial Margin Collateral, and Guaranty Fund Collateral. The Investment Summary Report should be provided to clearing members monthly. CCPs should provide investment balance disclosures to clearing members at the same level – clearing house legal entity/operating subsidiary level – in which the investments of member/clients are made.

Part 3(b): The Investment Detail by Account Report should be completed and provided for (a) House Initial Margin Collateral, (b) Client Margin Collateral and (c) Guaranty Fund Collateral, unless all funds are comingled and invested as a single pool such that CCP internal reporting is done on a consolidated basis only. In this latter case, CCPs can provide a single consolidated investment Detail by Accounts Report. If Guaranty Fund/House Margin Collateral is combined but Client Margin Collateral investments are segregated, then two detailed reports should be provided. The Investment Detail Report(s) should be provided to clearing members monthly. CCPs should provide investment balance disclosures to clearing members at the same level – clearing house legal entity/operating subsidiary level – in which the investments of member/clients are made.

It is expected that the information below be provided directly to the risk management functions within the clearing member's organization; the information is NOT to be further shared with business units of clearing member firms.

Unless otherwise indicated, pre-haircut market values should be used where possible. In addition, please note that the category of sovereign debt/government securities includes investments in Treasuries, securities issued by ministries of finance/central banks, investments in units of government stabilization funds, exchange authorities, diplomatic establishments as well as international and/or regional multilateral organizations (i.e., IMF, IBRD, Inter-American Development Bank).

* * * * *

Part 1: CCP Investment Policy Questionnaire - Please answer with a “yes”, “no”, or “not applicable” and include a detailed response to each question.

1. Does the CCP maintain a formal Investment Policy?
 - **If Yes:** What is the principal basis for the CCP’s Investment Policy? How frequently is this principal basis reviewed and by whom (functional title/committee)? Please provide information on the internal governing bodies responsible for reviewing/approving the Investment Policy, along with details (include frequency) of the governance process as it relates to renewal of and/or review of the Policy.
 - **If No:** Provide reasoning for this exclusion (e.g., neither cash nor securities collateral can be invested by the CCP) and explain how.
2. How does the CCP ensure internal compliance with its Investment Policy?
 - Include in response how compliance is monitored and by whom - frequency of concentration limit monitoring and escalation processes (latter in event of breaches).
3. Are exceptions to the Investment Policy permissible?
 - **If Yes:** Explain the approval process for granting exceptions to specific investments or the policy more generally.
4. Is the investment of cash collateral managed internally or is it externally outsourced?
 - **If Outsourced:** How much discretion does the external party/ies have over investments? How have the external parties been selected - what are the criteria used? Please provide a list of the external parties used. What is the credit quality of the external party/ies? What internal controls have been implemented to ensure sufficient credit quality of these external party/ies?
5. Please provide a summary breakdown of permissible securities/reverse repo/money market investments/equities and **complete specific parameter worksheet – Part 3(b) below**.
 - Include both asset types and permissible underlying issuers/tenors in response.
6. Are there any regulatory/jurisdictional constraints under which the CCP operates governing permissible investments for client and or member collateral posted (e.g., US CFTC 1.25)?
 - **If Yes:** Please list.
7. How frequently are investments marked-to-market (daily, monthly, etc.)? How are credit and market risks of these investments measured and what metrics are used?
 - Provide all relevant details.
8. Are investments held in the name of CCP?
 - **If Yes:** Confirm and provide details on potential steps taken to ensure the bankruptcy remoteness of these investments in the event of the CCP's default. Specifically, confirm availability of operational records/bookkeeping to trace cash/securities collateral to member/client.
 - **If No:** Indicate the name of the account in which the investments are held.

9. Are returns earned on these investments passed on to respective members?
- **If Yes:** Does the return to members fully reflect the investment risk being taken? In the case of zero/negative returns, are costs passed on to members?
 - **If No:** How much of the CCP's operating cost is covered by its investment profits?
10. Is the CCP allowed to re-hypothecate securities collateral?
- **If Yes:** Provide details on circumstances under which this ability can be implemented (e.g., normal or under exigent conditions, and if the latter, please name); whether the CCP has specific liquidity facilities which can be collateralized by member collateral - if so, list the steps taken by the CCP to preserve the reclamation rights of members in the event of the CCP's default.
 - **If No:** Are there jurisdictional legal/regulatory constraints prohibiting such practices? If so, reference such laws/regulations.
11. Does the CCP assume investment risks (including counterparty credit risk) related to its investments?
- **If Yes:** Provide details on compensation protocols, benefiting the members, which would be triggered if and when the CCP incurs a loss on its investment portfolio.
 - **If No:** Justify the reasoning behind this position; please also explain the processes by which potential investment losses may be passed on to members.
12. Please describe the use of publicly available ratings as a criterion to evaluate creditworthiness of repo counterparties and security issuers.
- Specify the process behind the choice of specific ratings (e.g., short versus long term) and which rating agencies are used.
 - Detail specific criteria (if any) utilized either in addition to or as a replacement for public ratings (if unavailable).

Part 2: CCP Investment Policy Questionnaire: Eligible Investments

List eligible assets (ratings/tenors/type) in which collateral posted can be invested at a CCP's discretion per Investment Policy with respect to:

- (a) House member initial margin
- (b) Client initial margin, and
- (c) Member guaranty fund contributions

Initial Margin Cash Collateral				
CCP Investment	Relevant tenors (include any as needed)	Response (Y/ N/NA)	Specify tenor concentration limits	Additional Detail as Indicated Below
Reverse Repos	Overnight			
	> Overnight <= 7 Days			
	> 7 days <= 30 Days			
	> 30 days <= 90 Days			
	> 90 Days <= 1 Year			
	> 1 Year <= 2 Years			
	> 2 Years <= 5 Years			
	> 5 Years <= 10 Years			
	> 10 Years			
	Counterparty Ratings (include any as needed)	Response (Y/N /NA)	Specify counterparty concentration limits	Include details on any other credit criteria utilized.
	A- or better			
	BBB+/BBB/BBB-			
	BB+ or lower			
	Collateral Eligibility	Response (Y/N/ NA)	Specify collateral concentration limits	If 'Other' securities - list these below
	Local			
US				
UK				
Germany				
France				
Japan				
Other (add row per specific underlying issuer name)				
CCP Investment	Relevant tenors (include any as needed)	Response (Y/N/NA)	Specify tenor concentration limits	
Sovereign Debt Investments	Overnight			
	> Overnight <= 7 Days			
	> 7 days <= 30 Days			
	> 30 days <= 90 Days			
	> 90 Days <= 1 Year			
	> 1 Year <= 2 Years			
	> 2 Years <= 5 Years			
	> 5 Years <= 10 Years			
	> 10 Years			
	Issuer Ratings (include any as needed)	Response (Y/N/NA)	Specify Issuer concentration limits	Include details on any other credit criteria utilized.
	A- or better			
	BBB+/BBB/BBB-			
	BB+ or lower			
	Eligible Securities	Response (Y/ N/NA)	Specify securities concentration limits	If 'Other' securities - list these below
	Local			
US				
UK				
Germany				
France				
Japan				
Other (add row per specific underlying issuer name)				

Initial Margin Cash Collateral (continued)					
CCP Investment	Relevant tenors (include any as needed)	Response (Y/ N/NA)	Specify tenor concentration limits		
Time Deposits/CDs, etc.	Overnight				
	> Overnight <= 7 Days				
	> 7 days <= 30 Days				
	> 30 days <= 90 Days				
	> 90 Days <= 1 Year				
	> 1 Year <= 2 Years				
	> 2 Years <= 5 Years				
	> 5 Years <= 10 Years				
	> 10 Years				
	Issuer Ratings (include any as needed)	Response (Y/N/NA)	Specify Issuer concentration limits		Include details on any other credit criteria utilized.
A- or better					
BBB+/BBB/BBB-					
BB+ or lower					
Margin Securities Collateral (only include details if re-hypothecation is permitted)					
CCP Investment	Relevant tenors (include any as needed)	Response (Y/N/NA)	Specify tenor concentration limits		
Repos, Pledges, Securities Lending, etc.	Overnight				
	> Overnight <= 7 Days				
	> 7 days <= 30 Days				
	> 30 days <= 90 Days				
	> 90 Days <= 1 Year				
	> 1 Year <= 2 Years				
	> 2 Years <= 5 Years				
	> 5 Years <= 10 Years				
	> 10 Years				
	Counterparty Ratings (include any as needed)	Response (Y/N/NA)	Specify tenor concentration limits		Include details on any other credit criteria utilized.
A- or better					
BBB+/BBB/BBB-					
BB+ or lower					
Guaranty Fund - Cash Collateral					
CCP Investment	Relevant tenors (include any as needed)	Response (Y/N/NA)	Specify Issuer concentration limits		
Reverse Repos	Overnight				
	> Overnight <= 7 Days				
	> 7 days <= 30 Days				
	> 30 days <= 90 Days				
	> 90 Days <= 1 Year				
	> 1 Year <= 2 Years				
	> 2 Years <= 5 Years				
	> 5 Years <= 10 Years				
	> 10 Years				
	Counterparty Ratings (include any as needed)	Response (Y/N/NA)	Specify counterparty concentration limits		Include details on any other credit criteria utilized.
	A- or better				
	BBB+/BBB/BBB-				
	BB+ or lower				
	Collateral Eligibility	Response (Y/N/NA)	Specify collateral concentration limits		If 'Other' securities - list these below
Local					
US					
UK					
Germany					
France					
Japan					
Other (add row per specific underlying issuer name)					

Guaranty Fund - Cash Collateral (continued)				
CCP Investment	Relevant tenors (include any as needed)	Response (Y/N/NA)	Specify tenor concentration limits	
Sovereign Debt Investments	Overnight			
	> Overnight <= 7 Days			
	> 7 days <= 30 Days			
	> 30 days <= 90 Days			
	> 90 Days <= 1 Year			
	> 1 Year <= 2 Years			
	> 2 Years <= 5 Years			
	> 5 Years <= 10 Years			
	> 10 Years			
	Issuer Ratings (include any as needed)	Response (Y/N/NA)	Specify Issuer concentration limits	Include details on any other credit criteria utilized.
	A- or better			
	BBB+/BBB/BBB-			
	BB+ or lower			
	Eligible Securities	Response (Y/N/NA)	Specify securities concentration limits	If 'Other' securities - list these below
	Local			
US				
UK				
Germany				
France				
Japan				
Other (add row per specific underlying issuer name)				
Guaranty Fund - Securities Contribution (only include details if re-hypothecation is permitted)				
CCP Investment	Counterparty Ratings (include any as needed)	Response (Y/N/NA)	Specify Issuer concentration limits	
Repos, Pledges, Securities Lending, etc.	Overnight			
	> Overnight <= 7 Days			
	> 7 days <= 30 Days			
	> 30 days <= 90 Days			
	> 90 Days <= 1 Year			
	> 1 Year <= 2 Years			
	> 2 Years <= 5 Years			
	> 5 Years <= 10 Years			
	> 10 Years			
	Counterparty Ratings (include any as needed)	Response (Y/N/NA)	Specify counterparty concentration limits	Include details on any other credit criteria utilized.
	A- or better			
	BBB+/BBB/BBB-			
	BB+ or lower			

Part 3 (a): CCP Investment Summary Report

Member Initial Margin Cash Collateral - Investment Portfolio Report	% of Total Cash Investments	\$
Reverse Repo Investments		
Time Deposit and CD Investments		
Sovereign Debt Investments		
<i>Member</i> - Total Initial Margin Cash Collateral Invested		\$
Client Initial Margin Cash Collateral - Investment Portfolio Report	% of Total Cash Investments	\$
Reverse Repo Investments		
Time Deposits and CD Investments		
Sovereign Debt Investments		
<i>Client</i> - Total Initial Margin Cash Collateral Invested		\$
<i>Member & Client</i> - Total Initial Margin Cash Collateral Invested		\$
Member Initial Margin Securities Collateral - Investment Portfolio Report	% of Total Collateral (Cash & Securities)	\$
Securities Collateral (Placements, Pledges, Repos, Securities Lending)		
<i>Member</i> - Total Initial Margin Securities Collateral Invested		\$
Client Initial Margin Securities Collateral - Investment Portfolio Report	% of Total Collateral (Cash & Securities)	\$
Securities Collateral (Placements, Pledges, Repos, Securities Lending)		
<i>Client</i> - Total Initial Margin Securities Collateral Invested		\$
<i>Member & Client</i> - Total Initial Margin Securities Collateral Invested		\$
<i>Member & Client</i> - Total Initial Margin Cash & Securities Collateral Invested		\$
Guaranty Fund (Cash Posted) - Investment Portfolio Report	% of Total Cash Investments	\$
Reverse Repo Investments		
Sovereign Debt Investments		
<i>Guaranty Fund</i> - Total Cash Contribution Invested		\$
<i>Guaranty Fund</i> Cash Contribution and <i>Member/Client</i> Total Initial Margin Cash Collateral Invested		\$
Guaranty Fund (Securities Posted) - Investment Portfolio Report	% of Default Fund	\$
Securities Contributions (Placements, Pledges, Repos, Securities Lending)		
<i>Guaranty Fund</i> - Total Securities Collateral Invested		\$
<i>Guaranty Fund and Member/Client</i> - Total Securities Collateral Invested		\$
<i>Total Guaranty Fund</i> Invested		\$
<i>Guaranty Fund</i> Contribution and <i>Member/Client Initial Margin</i> - Total Collateral Invested (Cash & Securities)		\$

Part 3 (b): CCP Investment Detail by Account Report

Reverse Repo Investments

Repo Maturities* (Please see below)	Aggregate Reverse Repo Amounts			Reverse Repo Counterparty and Collateral Detail**		
	% Repo Portfolio	CCY Amounts (in 000s)	USD \$ Amounts (in 000s)	Counterparty Credit Rating(s)	Issuer(s)	Haircuts Charged
Overnight						
> Overnight <= 7 Days						
> 7 days <= 30 Days						
> 30 days <= 90 Days						
> 90 Days <= 1 Year						
> 1 Year <= 2 Years						
> 2 Years <= 5 Years						
> 5 Years <= 10 Years						
> 10 Years						
Total Repo Portfolio	100%					

* Maturity refers to days left until termination of the reverse repo (or settlement of second leg) at which time securities collateral is returned to counterparty in exchange for cash, including interest.

** In cases where more than one collateral type (issuer) is relevant for a given tenor bucket, populate a separate/unique row for each issuer/tenor combination unless haircuts are the same across issuers, in which case, multiple issuers can be listed within a single row under "issuer(s)".

Time Deposits and CDs

Maturity Profile* (Please see note below)	Aggregate Deposits and CD Amounts**				Ratings	
	% of Deposits Portfolio	Central Bank Nostro Balances	Name of Central Bank	CCY Amounts (in 000s)	USD \$ Amounts (in 000s)	Credit Rating (use sovereign rating if CB balances)
		Yes or No	To be populated only if "yes" is selected in 'CB Nostro Balances' column			
Overnight						
> Overnight <= 7 Days						
> 7 days <= 30 Days						
> 30 days <= 90 Days						
> 90 Days <= 1 Year						
> 1 Year <= 2 Years						
> 2 Years <= 5 Years						
> 5 Years <= 10 Years						
> 10 Years						
Total TDs and CDs Portfolio	100%					

* Maturity refers to days left to final payment date of the deposit/CD at which time both principal and interest will be due.

** If funds are placed with multiple central and/or commercial banks within a given tenor bucket, then populate a separate/unique row.

Sovereign Debt					
	Aggregate Sovereign Investments			Issuer	Ratings
Maturity Profile* (Please see note below)	% of Sovereign Portfolio	CCY Amounts (in 000s)	USD\$ Amounts (in 000s)	Issuer	Sovereign Rating
Overnight					
> Overnight <= 7 Days					
> 7 days <= 30 Days					
> 30 days <= 90 Days					
> 90 Days <= 1 Year					
> 1 Year <= 2 Years					
> 2 Years <= 5 Years					
> 5 Years <= 10 Years					
> 10 Years					
Total Sovereign Debt Portfolio	100%				
* Maturity refers to days left to final payment date of the sovereign instrument at which time both principal and interest will be due.					
Securities Collateral Investment/Rehypothecation - Investment Portfolio Report Securities Collateral (Placements/Pledges/Repos/Securities Lending)					
	Aggregate Pledge/Repo Amounts			Repo Counterparty/Collateral Details	
Maturity Profile* (Please see note below)	% of Pledge/Repo Portfolio	CCY Amounts (in 000s)	USD\$ Amounts (in 000s)	Counterparty Credit Rating(s)	Issuer(s)
Overnight					
> Overnight <= 7 Days					
> 7 days <= 30 Days					
> 30 days <= 90 Days					
> 90 Days <= 1 Year					
> 1 Year <= 2 Years					
> 2 Years <= 5 Years					
> 5 Years <= 10 Years					
> 10 Years					
Total Securities Portfolio	100%				
* Maturity refers to days left to final payment date of the placement/pledge/repo at which time CCP will receive back securities collateral in exchange for cash borrowed plus interest.					

Topic E: Evaluation and Monitoring of Clearing Members

1. Rationale/Purpose: Clearing members are dependent upon CCPs to actively evaluate, monitor and measure risk to their members to ensure the safety and soundness of the CCP structure. When conducting due diligence, clearing members due should incorporate the CCP credit evaluation framework used to measure and monitor ongoing creditworthiness of all members to provide clearing members with the comfort that the CCP is cognizant of changing credit profiles of members and can take actions as needed to scale margins/impose position limits and take suitable action prior to a default.
2. Instructions and Suggested Frequency/Audience for Disclosure: Responses to the questionnaire below can be used as a means for CCPs to disclose and report, on a confidential basis, information related to their internal credit evaluation/monitoring processes. Such information should be shared with clearing members at least quarterly.

It is expected that the information below be provided directly to the risk management functions within the clearing member's organization; the information is NOT to be further shared with business units of clearing member firms.

* * * * *

Section 1: General

1. Which CCP governing body is responsible for the articulation and approval of the credit policy regarding evaluation and monitoring of clearing members?
2. How often is the above policy reviewed and updated?
3. Describe the credit policy and procedures used by the CCP to evaluate the creditworthiness of clearing members, settlement banks, custodians and other counterparties (e.g. collectively, "Risk Partners").
4. Detail the roles and responsibilities of each of the key internal and external stakeholders employed in the evaluation and monitoring of Risk Partners (e.g., Risk Department, CRO, Operations, third-party service provider, etc.). If a third party is involved in this process, please provide name and function performed.

Section 2: Membership Admission

5. Describe the front-to-back process by which new members and other Risk Partners are approved including those individuals/functions involved in that process. Is onsite due diligence of Risk Partners required and performed?
6. Apart from the membership criteria specified in the rules, please describe the incremental minimum requirements and considerations (e.g., financial and qualitative) with respect to the admission of new members and key Risk Partners.

7. Does the credit policy permit deviations from the required minimum admission standards? If so, what is the process for which exceptions are granted?

Section 3: Monitoring Scope

8. Provide a copy of the policies and/or procedures describing the approach to establishing and reviewing member- level limits; measuring uncollateralized exposures against such limits; and specific actions taken in the event of limit breaches.
9. Summarize the limits used to manage and control exposures to the Risk Partners.
10. What are the parameters by which the CCP evaluates creditworthiness of its Risk Partners (provide detail by each of members, counterparties, settlement/custodial banks, etc.)? What is the minimum frequency to report parameters internally?
11. What components of your Risk Partners do you monitor (e.g., their positions, exposures)? Please identify the frequency of internal monitoring of each component (e.g., intraday, end-of-day, weekly, monthly, quarterly, annually).
12. Does the monitoring frequency vary in response to market volatility? If so, please specify the trigger(s) for increased monitoring.
13. Does the monitoring frequency vary with level of exposures? If so, please specify the trigger(s) for increased monitoring.
14. What are the policy/governance requirements around reporting of members and Risk Partner creditworthiness and to whom?
15. What disclosures are Risk Partners required to provide to the CCP, and what are the consequences of non-compliance?

Section 4: CCP Internal Rating Systems

16. Does the CCP have a credit framework or formal rating methodology for evaluating clearing members and other Risk Partners?
17. Provide documentation describing internal credit rating methodology and framework. In this regard, please describe the (i) quantitative ratios evaluated, (ii) qualitative factors used, (iii) market data monitored, (iv) internal exposure/performance metrics evaluated. Describe how all these factors determine the internal rating assignment process used to evaluate member credit quality upon joining and then on a set periodic basis. For each of the items above that are used in determining the internal rating, please indicate whether these are equally weighted, and if they are not, please give an indication of the relative importance of each vis a vis the other (e.g., quantitative - 40%; qualitative - 20% etc.).
18. Provide a description of what the internal ratings correspond to in a quantitative (e.g., probability of default) and/or qualitative context. CCPs should disclose member credit quality profile while protecting confidentiality on a reasonable basis.

Section 5: Other Performance Measures

19. Are a clearing member's operational capabilities assessed when it applies for membership and/or as part of ongoing surveillance? If so, what are the key considerations?
20. Are a clearing member's trading and risk management capabilities assessed when it applies for membership and for ongoing surveillance? If so, what are the key considerations?
21. Describe any other financial and/or qualitative metrics/indicators used in monitoring clearing members (e.g., CDS spreads, equity prices, external rating actions, margin/guaranty fund levels relative to the rest of the participants, changes in margin, changes in guaranty fund, payment performance, regulatory/litigation), and the frequency employed (e.g., intraday, end-of-day, etc.). Indicate who is involved (e.g., internal risk management, Board members, etc.) in that process and what the nature is of any reporting/meetings.
22. Detail any credit stress testing that may be used in the ongoing evaluation of key Risk Partners and indicate frequency of such testing.

Section 6: Watch List

23. Does the CCP have and maintain a "watch list" to identify Risk Partners that demonstrate weakness/stress?
24. Describe the triggers for adding a firm to the watch list, and who (e.g., internal risk management, Board members, etc.) is involved in this decision.
25. Does the watch list have a hierarchy/different levels of risk severity? If so, please detail the levels and implications including the number of Risk Partners under each segment (e.g., notification to the Board, increased margin requirements, suspension, intraday margin calls).

Topic F: Initial Margin and Guaranty Fund Methodology

1. **Rationale/Purpose:** Understanding the methodology used by CCPs to determine their initial margin and guaranty fund is a fundamental part of clearing member due diligence. The template outlined below enables CCPs to share initial margin model and guaranty fund sizing methodology descriptions and related key parameters, as well as key backtesting statistics to members in a consistent manner. The initial margin template distinguishes between analytical models (e.g., HVaR), versus empirical models (e.g., Span), and covers margin “add-ons” separately.
2. **Instructions and Suggested Frequency/Audience for Disclosure:** CCPs should complete the following templates for each market, as indicated below, on a quarterly basis as applicable and make this information available to its clearing members.

It is expected that the information below be provided directly to the risk management functions within the clearing member's organization; the information is NOT to be further shared with business units of clearing member firms.

Summary of templates:

1. Initial Margin: Analytical Model Disclosure Template
2. SPAN (Standard Portfolio Analysis of Risk) -like IM Models: Empirical Model Disclosure Template
3. IM Add-Ons: Initial Margin Disclosure Template
4. IM Backtesting Methodology: Initial Margin Backtesting Disclosure Template
5. Guaranty Fund Sizing Disclosure Template
6. Key to Backtest Statistics Disclosure
7. Backtest Statistics Disclosure Template

* * * * *

1. Initial Margin: Analytical Model Disclosure Template	
Market/Product: Market(s) - exchange/MTF name (e.g., North American Power (NODAL)) or OTC Product(s) – IRS, Futures, CDS, FRA, etc., covered by model	
Model type	e.g., Historical Simulation, Monte Carlo, Parametric
Description	Description of the model type e.g., Standard VaR, EWMA, GARCH(1,1)
Rationale	Discuss the justification for the chosen approach, alternatively reference White Paper XYZ or similar for more details
Distributional assumptions	Yes/No (Describe any distributional assumptions - Normality, Extreme Value Theory)
Risk measure and confidence interval	e.g., VaR 0.9970
Look back period	Period of historical returns used in model (e.g., 2yrs, 3yrs, etc.)
Holding period (<i>time horizon for liquidation period and rationale</i>)	e.g., 5 day holding period for OTC contracts, 2 days for exchange traded contracts, etc.
Market factors	List all market factors included in the model (e.g., Zero Coupon Swap Curve Tenors, Spot FX rates etc.).

P/L methodology	Full Valuation, Delta-Gamma, etc.
Weighting applied to historical data	Specification of any weighting scheme (e.g., exponential with a decay factor of 0.94)
Volatility scaling applied to historical data	Yes/No

2. SPAN-like IM Models: Empirical Model Disclosure Template	
Market/Product: Market(s) - exchange/MTF name (e.g., NYSE Liffe) or OTC Product(s) – IRS, Futures, CDS, FRA, etc., covered by model	
Model Type	e.g., London SPAN v4, CME SPAN
Description	Description of the model type e.g., London SPAN v4, CME SPAN
Rationale	Discuss the justification for the chosen approach, alternatively reference White Paper XYZ or similar for more details
Number of scenarios used to compute the margin measure	e.g., scanning range = 16 scenarios concerning the combination of price change and volatility change
Risk measure and confidence interval	Statistic used to determine the risk measure, e.g., 3 standard deviations, worst loss, VaR, etc.
Look back period	e.g., historical period utilized to compute the risk measure (30 days, 60 days, 90 days, etc.)
Holding period (time horizon for liquidation period and rationale)	e.g., at least 5 days holding period for OTC contracts, 2 days for exchange traded contracts.
Tier structure utilized to capture inter-month spread charges?	Indicate Yes/No Briefly describe the structure, e.g., Futures maturities are grouped into a number of tiers, the front month being the first tier, the following months grouped into 2 - 5 tiers depending on extent/number of different contract maturities. For more information see Parameter Files XYZ on website link.
Margin offsets between instruments	Indicate Yes/No Briefly explain, e.g., offsets are allowed where there is demonstrable correlation between two instruments and a sound economic rationale for the correlation, for more information see Parameter Files XYZ on website link.
Strategy spread offsets (given for trading strategies which reduce risk)	Yes/No
Spot month charge	Yes/No
Change control governance	Describe the process to approve changes to the model. Are there independent reviews?

3. IM Add-Ons: Initial Margin Disclosure Template

Market/Product: Market (s) - exchange/MTF name (e.g., NYSE Liffe) or OTC
Product (s) – IRS, Futures, CDS, FRA, etc., covered by model add-ons

Liquidity Risk / Concentration Risk <i>(Market risk from liquidating positions which are large relative to the market)</i>	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
Correlation Risk <i>(Market risk owing to changes in correlations during stress periods)</i>	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
Basis Risk <i>(Product P/L not fully captured by risk factors covered by IM)</i>	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
Model Risk <i>(Add-on to cover general failure of IM Model)</i>	Yes (describe methodology), No (not relevant, please explain)
Country-Specific Credit Add-on	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
Sector-Specific Credit Add-on	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
Member Specific Credit Add-on	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
General Wrong Way Risk <i>(where the exposure to a member is likely to increase when the creditworthiness of that member is deteriorating)</i>	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
Specific Wrong Way Risk <i>(where a member has a direct exposure to other members' creditworthiness and/or products cleared)</i>	Yes (describe methodology), No (as captured directly by IM, or captured in the GF – please explain) Not relevant (please explain)
Other Risks <i>(any other type of additional risk not included in the base IM calculation)</i>	Specify purpose and method

4. IM Backtesting Methodology: Initial Margin Backtesting Disclosure Template

Market/Product: Market(s) - exchange/MTF name (e.g. NYSE Liffe) or OTC Product(s) – IRS, Futures, CDS, FRA, etc., covered by backtest

Description and Purpose of the Initial Margin Backtesting	Describe the type of backtest performed and the purpose of the test. State whether backtest includes base initial margin requirement only or also includes margin add-ons.	e.g., 1 This is a member portfolio backtest where initial margin is compared to the following day(s) variation margin assuming a constant portfolio. e.g., 2 This is quantitative backtest at risk factor level to assess Type I or II error. e.g., 3 This is a hypothetical portfolio backtest where initial margin is compared to a following day theoretical P/L, the purpose of which is to assess performance of special portfolios or underweight positions and risk factors not captured in member portfolio backtesting.
Frequency	How often is the backtest run and results disclosed?	e.g., Calculated daily and reported to management monthly.
Clean/Dirty Backtest	Describe how the P/L is calculated.	A clean backtest ignores trading fees, commissions, and intraday trades etc., while dirty includes all associated costs and intraday trades that typically would not be in the preceding end of day initial margin.
Holding period <i>(Time horizon for liquidation period)</i>	Figure should be in line with value disclosed within tables 1 and 2.	e.g., 3 days
Test statistics		
Coverage tests	Identifies the number of breaches over a given period	Yes/No (if yes , specify the name of the test e.g., Kupiec)
Independence test	Identifies the number of breaches over a given period.	Yes/No (if yes , specify the name of the test e.g., Christoffersen)
Look back period	Defines window of the backtest, over which the breaches are counted.	e.g., 2 years
Model Performance Criteria	<u>Criteria for assessing the performance of the model:</u> What are the Key Performance Indicators used to indicate favorable or unfavorable performance? In the case of adverse performance, what are the management actions?	e.g., Breach count, proportion of failure, test statistics or combination of the above. e.g., Minimum 95% coverage is expected; coverage below this level would result in a model review being undertaken.

Change control governance	Describe how the executive management is informed and consulted on model performance and any recommended changes to the margin models. Who approves any significant margin model changes? Describe how the backtests are used in the risk management process.	
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5. Guaranty Fund Sizing Disclosure Template

Market/Product: Market (s) - exchange/MTF name (e.g., NYSE Liffe) or OTC Product (s) – IRS, Futures, CDS, FRA, etc., which guaranty fund is protecting

Guaranty fund sizing

Default coverage	Indicate the number of member defaults that the guaranty fund is intended to cover. State whether it is sized to capture any additional risks not captured in the initial margin (e.g., liquidity risk).	e.g., The guaranty fund is intended to cover the simultaneous default of the two largest members, and is not sized to capture concentration risks which are captured via margin add-ons.
Treatment of client accounts	Describe the approach to treatment of house and client accounts when aggregating uncollateralized portfolio stress test losses for guaranty fund sizing.	e.g., The scenario aggregation (1) does not allow client profits to offset house losses, (2) includes all (or X # of) client portfolios per member in calculation and (3) no assumptions are made regarding client porting.
Methodology	Basis for guaranty fund sizing (e.g., stress tests, simulation, stressed IM, judgment, etc).	e.g., Absolute and relative stress tests applied based on historical events and theoretical scenarios. The fund is sized from the single largest average member loss over the last 60 days plus 3 standard deviations.
Frequency of aggregate resizing	How frequently is the aggregate guaranty fund reset?	e.g., Monthly
Floor	Is there a cap or floor on the aggregate size of the guaranty fund?	e.g., Yes a cap is set at \$1bn and can only be changed via a member ballot.
Current balance	What is the current size of the guaranty fund as of the most recent month-end?	e.g., \$500m as at 31/12/11
Frequency of stress calculation	How often are stress tests performed to ensure guaranty fund adequacy?	e.g., Monthly

Governance/ Reporting	Describe the process followed to approve changes to guaranty fund methodology, stress scenarios used for guaranty fund sizing purposes and member allocation. Who receives stress tests results and how are results used? Who has ability to re-size aggregate guaranty fund between scheduled resets?	
Guaranty fund allocation		
Methodology	Describe approach to determine members' contributions.	e.g., Proportional to initial margin
Minimum contribution	Is there a floor to a member's contribution?	Yes e.g., \$10mm No
Testing the sufficiency of the guaranty fund balance		
Types/# of stress tests or other tests used to ensure adequacy	Hypothetical (scenarios for plausible financial crises)	Yes e.g., Euro-zone break-up. No
	Historical (<i>Scenarios based on specific historical events</i>)	<u>Methodology</u> : Yes (Please explain how dates are chosen) No
		<u>Look back period</u> : Define the window from which the stress scenarios are derived
		<u>Return formulation</u> : How are returns calculated?
	Statistical (<i>derived from statistical properties of returns</i>)	Yes (Please explain methodology; e.g., we employ our initial margin methodology at a 99.9% level of confidence) No
	Other tests	Yes (Please describe) No
	Number of scenarios considered	e.g., 102 (50 theoretical and 52 empirical)

6. Backtest Statistics Key

Key: This table is meant to provide a reference key to the backtest report (table 7) and is not intended to be completed by CCPs, but it is recommended to be used to encourage consistent reporting across CCPs. However, if a CCP utilizes a different approach and/or terminology, it may instead provide its own Backtest Statistics Key.

As of Date	The date of the backtest report.
Approach	Initial margin requirement on T is compared to the following day(s) profit and loss. The profit and loss should be calculated on the same basis as the initial margin calculation. For example if the initial margin is derived from end of day positions on T, the profit and loss should be based on the same positions held constant over IM-assumed holding period.
Market(s)	Same market(s) disclosed within the Initial Margin Model Disclosure Template.
Number of Members	Number of members in the market under review with open positions.
Number of Accounts	Number of client and house accounts related to the members under review. Accounts should include those opened and/or closed during the period.
Window (# of business days)	The look back period in the test; this should be at least 12 months. CCPs should be encouraged to use longer periods where possible.
Holding Period	The period (# of days) of potential future exposure/losses the initial margin is attempting to cover.
Confidence Interval	The confidence interval used in the calculation of initial margin under observation, e.g. 99%
Profit and Loss	The change in fair value over the holding period of the positions subject to the test.
Number of Observations	Number of business days in the window multiplied by the number of accounts. For example 250 business days and 20 accounts results in 5000 observations.
Number of Exceedances	The number of exceedances (e.g., breaches) over the window being observed for all member accounts for the market under review. For example if a CCP had 2 members with 2 accounts each and each account had 1 breach (account P/L exceeds account IM), then the number of exceedances = 4.
Sum of Exceedances	Sum of the exceedance (e.g., breach) values across all breaches over the window being observed for all member accounts for that market under review. For example, if a CCP had 2 members with 2 accounts each and each account had 1 breach (account P/L exceeds account IM), then the sum of exceedance is the sum of the 4 breach amounts.

Maximum Exceedance	The largest exceedance (e.g., breach) across all breaches over the window being observed for all member accounts for that market under review. For example, if a CCP had 2 members with 2 accounts each and each account had 1 breach (account P/L exceeds account IM), then the maximum exceedance value is the highest across the 4 breach amounts.
Coverage Rate	$(\text{Number of observations}) - (\text{Number of exceedances}) / (\text{Number of observations})$
Total Initial Margin Requirement	Initial margin requirement at aggregate market level under test. The initial margin requirement should exclude any margin add-ons as these will not usually be observed in the profit and loss calculation. However if the CCP includes margin add-ons as part of the backtest, then the CCP should explicitly state so.
Remarks	Supporting comments to explain the results (if needed)

7. Example of Backtest Statistics		
As of date	09/10/2012	12/10/2012
Approach	Member portfolio backtest comparing ex ante initial margin against ex post clean P&L	Member portfolio backtest comparing ex ante initial margin against ex post clean P&L
Market(s)	OTC-CDS	LD-F&O-Softs
Number of Members	20	100
Number of Accounts	40	500
Window (# of business days)	250	250
Holding Period	1 day	1 day
Confidence Interval	99%	99%
Number of Observations	10,000	125,000
Number of Exceedances	259	464
Sum of Exceedances	12,356,699	33,455,680
Maximum Exceedance	2,678,899	1,467,782
Coverage Rate	97.41%	99.63%
Total Initial Margin Requirement	235,533,229	1,455,883,220
Remarks	e.g., Coverage slightly below confidence interval of 99%, but max and sum of exceedances are low, indicating elevated number of small breaches. This was due to large market move on JPY market dd/mm/yy.	e.g., Strong coverage and low maximum exceedance.

While the template includes a section on CCPs high level approach to stress testing performed for guaranty fund sizing/adequacy, it does not yet include stress test result reporting. It is envisioned that this will be added to the methodology disclosure template at a future date.

Topic G: Default Procedures

1. Rationale/Purpose: A CCP must have default rules/procedures that enable it to address a clearing member default in a timely manner. Understanding these procedures is an important part of clearing member due diligence. The Default Management Disclosure Matrix below was developed as a means for CCPs to provide information to their clearing members on their default rules/procedures, enabling clearing members to assess a CCP's preparedness for managing defaults, and evaluate potential consequences of a default.

2. Instructions and Suggested Frequency/Audience for Disclosure: The information disclosed in this matrix should be updated annually, at a minimum (sooner if significant changes made to default management practices/rules). The rules/procedures should be publicly available on the CCP's website or upon request, based on the discretion of the CCP with regard to the sensitivity of the information.

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Item Number	Information Requested	Response	Rule #/Procedure # including version (if applicable)
A	Default Definition and Procedures		
A-1	Please describe the events that would constitute a default and how defaults are identified.		
A-2	Please identify the committee(s)/person(s) which/who has/have ability to determine if a default event has occurred and describe the process for declaring a default.		
A-3	Please provide an overview of procedures that are followed once a default has been identified. How does the CCP determine whether the default is associated with a client or house account?		
A-4	Does the CCP have flexibility/discretion in handling specific conditions of default? If yes, please provide examples.		
A-5	Do one or more default management committees (DMC) exist? If yes, please list according to product type, and describe each committee's composition, responsibilities and its criteria for membership. Please provide the final and approved charters for the DMC(s).		
A-6	Please specify each DMC's role within the CCP's governance framework. Does it only act in an advisory capacity or does it also have decision making authority? If the DMC only plays an advisory role, please indicate the person(s) with authority to make decisions.		

Item Number	Information Requested	Response	Rule #/Procedure # including version (if applicable)
A-7	What is the primary location for the DMC and does the CCP provide a backup location?		
A-8	Upon the occurrence of a default, what are the CCP's procedures for communication with non-defaulting members? Specifically, does the CCP communicate the occurrence of a default and/or the suspension of membership to clearing members, and other CCPs, in addition to regulators? If so, what is the mechanism for each?		
A-9	What process/channels of communication exist between the CCP's DMC and Board Risk Committee?		
A-10	Does the CCP have the ability to use emergency powers in the event of a default? If yes, please provide reference for this rule and clarify how the emergency provisions would interact with the DMC as laid out in rules/procedures?		
B	Liquidation/Allocation (General)		
B-1	What are the rules-based method(s) by which the clearinghouse can liquidate the defaulting member's portfolio? (<i>e.g., anonymous via market mechanism (e.g., DMC, SEF, IDB), solicitation of individual counterparties, auction, etc.</i>) Please describe what forms of liquidation/execution are permissible for each product type.		
B-2	If solicitation of individual counterparties is used as the means to liquidate the defaulting member's portfolio, what is the process by which these counterparties are determined (<i>e.g., are they limited to existing members, and, if so, are existing members portfolios first evaluated from a risk perspective?</i>)? How does the CCP ensure reasonable liquidation values? (Question seeks to address sufficient protection of guaranty fund resources.)		
B-3	Does the CCP/DMC have a clearly defined schedule/timeline that would be followed for conducting various activities (<i>e.g., hedging on day 1, portfolio splitting for auction on day 2, etc.</i>) following a default? If so, describe the process and timeline for completion.		
B-4	Is the CCP permitted to outsource aspects of default management? If so, to whom? What indemnification is provided if the outsourcing results in a loss?		

Item Number	Information Requested	Response	Rule #/Procedure # including version (if applicable)
C	Liquidation/Allocation (Hedging)		
C-1	Does the CCP require/allow hedging of transactions?		
C-2	If hedging is allowed, prior to hedging, if a DMC is used, are DMC traders provided with any guidance with respect to a targeted level for risk reduction? If so, is there any guidance/cap on the level of safeguards that can be used to cover hedging costs?		
C-3	If a DMC is used, is there any guidance provided to the DMC on the nature of instruments that can be utilized to hedge the defaulting member's portfolio?		
C-4	Provide an overview of the type of agreements a CCP has in place to facilitate the execution of hedges (<i>e.g., execution agreements for cleared or non-cleared bilateral trades</i>).		
C-5	Given the cost of hedging, are there definitive guidelines that determine how and when a defaulting member/client's securities collateral can be liquidated?		
D	Liquidation/Allocation (Auction)		
D-1	Is there a bidding or auction process? If so, are members required to participate, and if so, to what extent?		
D-2	On what basis does the DMC decide the size and composition of the auction portfolio? What are the criteria used for portfolio splitting? Please provide the default management procedure documents that elaborate upon these details.		
D-3	How would the auction be structured/conducted in the case of multiple currency portfolios?		
D-4	What is the consequence if two or more bidders submit the same price for an auction portfolio (<i>e.g., is portfolio allocated on a pro-rata basis, and/or is timeline of price submission used to determine the allocation</i>)?		
D-5	Does the CCP allow members to submit partial bids? Is there a clearinghouse minimum for which members are required to bid and, if so, how is this determined? Is there any incentive to submit bids in excess of the minimum?		
D-6	Please elaborate upon the methodology used by the CCP to encourage auction participation.		

Item Number	Information Requested	Response	Rule #/Procedure # including version (if applicable)
D-7	How are "off market" or "non-competitive" bids defined and what are the consequences of submitting "off market" bids?		
D-8	How does the CCP deal with a scenario where it does not receive any bids in the auction?		
E	Replenishment of Resources Post-Default		
E-1	Describe the waterfall for the allocation of losses as a result of a clearing member default.		
E-2	Does the CCP have the ability to use defaulting member collateral (margin or guaranty fund) posted to other segments of the CCP?		
E-3	What mechanism is used to determine the allocation of losses from a clearing member default to the non-defaulting clearing members? Does the CCP have a mechanism for tranching guaranty fund contributions of non-defaulting members? If so, please describe the principles driving such tranching.		
E-4	Describe additional assessment powers. Please also elaborate on the rules around guaranty fund replenishment, specifically the events that would allow the CCP to require replenishment of the funded portion of the guaranty fund.		
E-5	Is there a cap on CCPs additional assessment authority? If yes, please describe how the cap functions (<i>e.g., per default, for a specific period of time, over the life of the membership.</i>).		
F	Client Specific Issues		
F-1	Does the CCP allow the transfer of non-defaulting customer positions and if so, how would this occur?		
F-2	How does the CCP's legal jurisdiction treat client segregation and portability arrangements? For example, is a customer required to identify/establish a "back-up" clearing member ex ante?		
F-3	How is the ownership of client positions and related collateral verified? Are customer accounts legally and/or operationally segregated at the client level, held as an omnibus, or potentially a combination?		
F-4	Does the CCP assist in identifying a "White Knight" clearer (<i>e.g., a clearing member that would be willing to take client positions and clear going forward</i>)?		

F-5	What is the timeline for transferring client positions? How quickly can an institution expect to transact after the default of its clearing member? Similarly, is there a timeline within which client positions must be transferred? If so, how does the CCP handle a portfolio that has not been transferred within this time frame?		
F-6	Are there any legal or operational constraints that may impair the CCP's ability to segregate or transfer clients' positions and related collateral?		
G	Preparedness/Testing		
G-1	Does the CCP perform default simulations or fire drills? If so, please respond to all remaining questions within this section. If not, please skip to G-6.		
G-2	What is the frequency of default simulations?		
G-3	Who participates in these simulations?		
G-4	What are the scenarios used for these simulations (<i>e.g., single member default, multiple member default, etc.</i>)? Do the simulations vary (<i>e.g., can there be different scenarios that focus on particular aspects of default management</i>)? Please elaborate on the composition of portfolios used for testing and describe the basis by which these portfolios were created.		
G-5	Is a post-review document prepared following default simulations? If so, who receives the document and what are the subsequent actions taken in response? Please provide a summary of the most recent default management test performed over the last year (since the last disclosure update) and highlight any significant lessons learned/changes that are likely to be made to the process.		
G-6	How often are/will the default management procedures (<i>e.g., roles and responsibilities, criteria for splitting, etc.</i>) be reviewed?		
H	Liquidity		
H-1	Please describe the governance related to the management of the CCP's liquidity? How are overall liquidity needs sized? Does the CCP meet the "cover one" or "cover two" standards when sizing its liquidity needs?		
H-2	Please list any liquidity facilities that the CCP has access to for handling a member default (<i>e.g., facility amount, secured or unsecured syndicated facilities or lines of credit, access to central bank funding</i>).		

H-3	<p>Under what conditions can these facilities be drawn and what are the contractual funding requirements associated with them (<i>e.g., collateral/repayment terms</i>)? Are there any exclusions/restrictions that would prevent clearing members from participating in liquidity facilities? Does the CCP limit the participation in these facilities so that a single clearing member does not represent more than a certain percentage of each facility? If so, please describe any limitations on concentration.</p>		
H-4	<p>If the liquidity facility is collateralized, can the collateral posted by non-defaulting clearing members be used? In response, please differentiate between initial margin collateral and guaranty fund contributions posted by non-defaulting members.</p>		

Topic H. Legal Opinions Related to Centrally Cleared Transactions

1. Rationale/purpose: The below document provides an outline of legal opinions or memoranda required by a banking organization that is a clearing member, including a self-clearing member, of a CCP for purposes of calculating the regulatory capital treatment under Basel III of its cleared derivative and repo-style transactions.

The outline is based on the Basel Committee on Banking Supervision's (BCBS) *International Convergence of Capital Measurement and Capital Standards: A Revised Framework – Comprehensive Version*, June 2006, as amended and supplemented by *Capital Requirements for Bank Exposures to Central Counterparties*, July 2012 (BCBS).

2. Instructions and Suggested Frequency/Audience for Disclosure: The information disclosed in this matrix should be updated annually, at a minimum, and shared with clearing members.

It is expected that the information below be provided to the clearing member's organization; the information can be shared with business units of clearing member firms.

All the opinions discussed below would be required to satisfy the following criteria:

- The legal opinion should be a written, reasoned opinion or legal memorandum setting out the law of the relevant jurisdiction and its reasoned interpretation.
- The opinion should be released by the CCP's external legal counsel.
- Clearing members should be entitled to rely on the opinion. Language to the effect that the opinion is furnished to the CCP for the benefit and use of its clearing members and their affiliates is acceptable to satisfy this criterion. Other customary qualifications would also be acceptable.

* * * * *

- A. Netting. For cleared transactions that are derivative contracts, an opinion to the effect that:

1. The provisions of the CCP's rules and/or bylaws are legal, valid and binding and would be found enforceable under the laws of the relevant jurisdiction(s) by the relevant court or administrative authority in the event of a legal challenge (including one resulting from default or from receivership, insolvency, liquidation or similar proceeding), to the extent such provisions would operate to:
 - (a) cause the acceleration, termination and close-out on a net basis of all transactions governed thereby and liquidation or set-off collateral promptly upon an event of default, including upon an event of receivership, insolvency, liquidation or similar proceeding, of the CCP; and
 - (b) limit the obligations of each clearing member to the CCP, and of the CCP to each clearing member, in respect of such transactions to a single net amount to be paid to or by such clearing member in respect of its house positions and, subject to any regulatory requirements regarding customer

account classes and customer accounts and any limited recourse features, to a single net amount to be paid to or by such clearing member in respect of its client positions.

2. The exercise of the clearing member's rights against the CCP as specified in clause (1) above would not be stayed or avoided under applicable law in the relevant jurisdiction(s).¹⁰ In US law opinions, a qualification would be acceptable with respect to any receivership, conservatorship, resolution under the Federal Deposit Insurance Act, Title II of the Dodd-Frank Act or under any insolvency law applicable to government sponsored entities.
 3. The CCP's rules and bylaws do not contain a "walkaway" clause for non-defaulters. A walkaway clause is any provision that would permit a non-defaulting party to make a lower payment than it otherwise would make, or no payment at all, to a defaulting party or its estate, even if the defaulting party or its estate is a net creditor notwithstanding any limited recourse features of the CCP's rules.
- B. Classification as Repo-style Transaction. Repo-style transactions are subject to specific rules. A repo-style transaction is a repo, reverse repo, securities lending or securities borrowing transaction, including a transaction in which the banking organization acts as agent for a customer and indemnifies the customer against loss. For a cleared transaction that is a repo-style transaction an opinion to the effect that the provisions of the CCP's rules and/or bylaws are legal, valid and binding and would be found enforceable under the laws of the relevant jurisdiction(s) by the relevant court or administrative authority in the event of a legal challenge (including one resulting from default or from receivership, insolvency, liquidation or similar proceeding), to the extent such provisions would operate to provide a clearing member rights to accelerate, terminate and close out on a net basis the transaction and liquidate or set-off collateral promptly upon an event of default, including upon an event of receivership, insolvency, liquidation or similar proceeding, of the CCP; and the exercise of such rights would not be stayed or avoided under applicable law in the relevant jurisdiction(s), other than in receivership, conservatorship, resolution or under any applicable insolvency law. In US law opinions, a qualification would be acceptable with respect to any receivership, conservatorship, resolution under the Federal Deposit Insurance Act, Title II of the Dodd-Frank Act or under any insolvency law applicable to government sponsored entities
- C. Clearing Member Collateral. For both cleared derivative and cleared repo-style transactions, an opinion may be obtained, if available to the effect that the collateral¹¹ posted by a non-defaulting clearing member that is held in a segregated account by the CCP or by a custodian, on behalf of the CCP, would not be subject to the claims of non-clearing member creditors of the CCP in a receivership, insolvency, liquidation or similar proceeding of the CCP.¹² If a clearing member obtained the opinion described above, it could treat collateral posted by it as "bankruptcy remote" from the CCP, and it would not be required to include the fair value of such collateral in the calculation of its trade exposure amount.

¹⁰ For CCPs in the U.S. and for purposes of an opinion relating to stay, we assume that U.S. federal law would be the applicable law, but further clarification is needed, both with respect to U.S. and non-U.S. CCPs.

¹¹ Firms should consider if different analysis is appropriate for cash accounts, in the context of paragraph 118 of BCBS, Annex 4, as implemented in the relevant jurisdiction if applicable.

¹² A CCP would only be required to return to a defaulting clearing member's collateral remaining after off-setting of the clearing member's collateral against the obligations of the clearing member and clients.

Appendix: Members of the Working Group

PRC Sponsor, CCP Study Group David Weisbrod*

Working Group Lead Greg Fell

PRC MEMBER PARTICIPANTS

Bank of America Ed Berliner*

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Bank of Tokyo Mitsubishi UFJ Rajeev Gupta

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ICE Clear US	Bruce Domash
LCH.Clearnet	Chris Jones Nicholas Lincoln*
Options Clearing Corporation	Simon Babbs John Fennell Michael Walinskas Dennis Woods

SECRETARIAT

Federal Reserve Bank of New York	Michele Braun Kirsten Harlow Tyisha Rivas David Sewell
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An asterisk (*) identifies those individuals who led one or more of the workstreams and a hash mark (#) recognizes individuals that participated in this work for a portion of the time but whose contributions we would like to recognize.

Staff from the following agencies also participated in this work with observer status: Bank of England, Deutsche Bundesbank, European Central Bank, Federal Reserve Board of Governors, Federal Reserve Bank of New York, German Federal Financial Supervisory Authority, U.K. Financial Services Authority, U.S. Commodity Futures Trading Commission, and U.S. Securities and Exchange Commission.