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Systems Secretariat
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**Technical Committee of the International
Organization of Securities Commissions
General Secretariat
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Re: *Principles for financial market infrastructures*

J.P.Morgan welcomes the opportunity to provide comments to the Committee on Payment Settlement Systems (“CPSS”) and the Technical Committee of the International Organization of Securities Commissions (“IOSCO” and together with CPSS, “CPSS-IOSCO”) with respect to the March 2011 consultative report *Principles for financial market infrastructures*.¹ We believe that replacing the existing CPSS and IOSCO standards for financial market infrastructures (“FMIs”)² with a single set of standards will provide greater consistency in the oversight and regulations of FMIs worldwide and thereby advance the public policy objectives of enhancing safety and efficiency in payment, clearing, and settlement arrangements, limiting systemic risk, and fostering transparency and financial stability.

In the first part of this letter we provide a number of general comments. In the second part we comment on the following principles and annexes: principle 1 (legal basis), principle 2 (governance), principle 3 (framework for the comprehensive management of risks), principle 4 (credit risk), principle 5 (collateral), principle 6 (margin), principle 7 (liquidity risk), principle 8 (settlement finality), principle 9 (money settlements), principle 11 (central securities depositories), principle 14 (segregation and portability), principle 16 (custody and investment risk), principle 18 (access and participation requirements), principle 19 (tiered participation arrangements), principle 20 (FMI links), and Annex E (guidance for CCPs that clear OTC derivatives).

1. GENERAL COMMENTS

Applicability of the principles

The principles in the report are designed to apply to all payment systems, central securities depositories (“CSDs”), securities settlement systems (“SSSs”), central clearing counterparties (“CCPs”), and trade repositories (“TRs”) that are systemically important, although section 1.20 of the report states that all FMIs “are encouraged to meet” the principles.³ While section 1.20 specifies that the “presumption is that all CSDs, SSSs, CCPs, and TRs are systemically important,” we believe that the principles should apply to all CSDs, SSSs, CCPs, and TRs, regardless of whether they are designated as systemically important. The lack of a designation of systemic importance should be relevant only to the timing of phase-in of compliance with the principles. For payment systems, we agree with the approach in the report that the

¹ CPSS-IOSCO, *Principles for financial market infrastructures*, CPSS Publications No. 94 (proposed March 10, 2011), available at <http://www.bis.org/publ/cpss94.pdf> [hereinafter *Consultative Report*].

² CPSS, *Core principles for systemically important payment systems* (January 2001), <http://www.bis.org/publ/cpss43.pdf>; CPSS-IOSCO, *Recommendations for securities settlement systems* (November 2001), <http://www.bis.org/publ/cpss46.pdf>; and CPSS-IOSCO, *Recommendations for central counterparties* (November 2004), <http://www.bis.org/publ/cpss64.pdf>.

³ *Consultative Report*, *supra* note 1, at 12.

principles should apply only to those that are systemically important. It is likely that certain payment systems, such as retail ACH systems⁴ or others that largely process low-value payments and are primarily calculation engines with net positions settling in RTGS systems, are not systemically important, and if their respective national authorities determine that they are not, they should be exempted from mandatory compliance with the principles. In addition, we believe it would be appropriate for the principles to be expressly applicable to execution venues such as exchanges, swap execution facilities (“SEFs”), and other trading venues. These execution venues perform a systemically relevant function and have a direct impact on the ability of CCPs and market participants to manage risk. Please refer to our comments below in relation to exchanges and other trade execution facilities for more detailed comments on this topic.

FMI resolution

Section 1.23 of the report states that the report does not directly address “issues relating to the design and implementation of resolution and insolvency regimes for FMIs,” which are considered beyond the scope of the report.⁵ While we appreciate that the complexity of the topic does not lend itself to comprehensive treatment in the report, we would encourage CPSS-IOSCO to consider developing certain basic principles regarding FMI resolution.

One such principle that we would urge CPSS-IOSCO to incorporate into the report is a requirement that all systemically important FMIs establish *ex ante* resolution plans that set forth clear and transparent rules that would be applied if they suffer losses that exhaust their financial resources. These plans would address, among other things, default management processes and participant loss-sharing arrangements and would serve as the contractual equivalent of a judicial insolvency proceeding. The objective of establishing such plans would be to avoid the uncertainties, delays, and other risks associated with a judicial insolvency proceeding, promote systemic stability, and reduce the pressure on governmental authorities to provide assistance to insolvent FMIs.

CCP ex ante resolution plans; capped liability of clearing members

We believe that every CCP should be required to adopt a resolution plan that would be implemented if losses exhausted the CCP’s financial resources so that its clearing members and clients can quantify their exposure to CCPs and manage their risk in a prudent manner. These plans would be established *ex ante*, meaning prior to the occurrence of an emergency situation. A CCP’s financial resources would comprise its clearing members’ initial margin, funded and unfunded guaranty fund contributions, and the CCP’s own capital. In the case of the default of a client, the CCP’s financial resources would also include the collateral of the defaulted client and, depending on the client collateral segregation model applicable to the CCP, in some cases a measure of loss mutualization between clients may be applicable. In our view, an essential element to any CCP’s resolution plan would be clear loss-sharing rules for participants (both direct and indirect) that, among other things, would limit clearing members’ liability to the CCP so that the clearing members would not be legally obligated to make unlimited payments into the CCP but rather would be liable up to an amount that they could calculate and risk manage. As we discuss below, in our comment to Principle 4, a limited or capped liability structure would allow clearing members and clients to monitor and manage their exposure to the CCP and promotes systemic stability.

⁴ An ACH (automated clearing house) system is “an electronic clearing system in which payment orders are exchanged among financial institutions, primarily via magnetic media or telecommunications networks, and handled by a data processing centre.” CPSS, *A glossary of terms used in payments and settlement systems* (rev. ed. March 2003) at 8, <http://www.bis.org/publ/cpss00b.pdf> [hereinafter *CPSS Glossary*].

⁵ *Consultative Report*, *supra* note 1, at 14.

The introduction of *ex ante* rules establishing capped financial resources for CCPs would incentivize the CCP to manage risk in a prudent manner. The CCP and its clearing members would also maintain the ability under the CCP's resolution plan to work out potential recapitalization arrangements. At a minimum, some of the clearing members would be incentivized to recapitalize the CCP because otherwise they would have to incur considerable costs to replace the contracts that used to be cleared in that CCP. In our view, the tearing up of cleared contracts is a systemically relevant event that should be avoided if possible. However, a CCP should be allowed to fail if it has exhausted the financial resources available to it and it is not recapitalized.

It should be noted that clearing members are typically not liable to indirect participants for a failure by the CCP, the reason being that clearing members are intended to represent a conduit through which clients access the CCP's clearing service, irrespective of whether from a strict legal point of view the relationship between clearing member and client is one of principal or agent. Each client should conduct its risk assessment by referring to the CCP's financial guaranty package, which is intended to provide adequate coverage for the risks cleared by the CCP. We refer to our comments in the following section regarding transparency of CCP risk management.

If a failing CCP is not recapitalized, then it would be wound down in a contractual process similar to a judicial insolvency. This would involve the termination of all trades between clearing members and the CCP or the transfer of the trades to an alternative CCP.

The feasibility of such a resolution plan would depend on its enforceability in the jurisdictions where a CCP is organized, holds margin, and otherwise operates. Those jurisdictions should have clear laws supporting all *ex ante* rules along with the legal enforceability of the CCP's default management framework, collateral segregation, and close-out netting in the case of the CCP's insolvency.

Transparency of CCP risk management

We recommend that the principles require each CCP to: (i) work closely with its clearing members to develop appropriate stress testing and back testing methodologies, as well as internal credit review processes; and (ii) provide its clearing members with copies of the models used by the CCP that can be shared with their clients that access the CCP through the clearing members. This would facilitate independent testing and replication and would promote transparency. CCPs should be required to obtain regulatory approval of key risk methodologies and internal risk management processes. Rigorous and transparent back and stress test standards, subject to strict regulatory oversight, are critical to the ability of the framework to withstand the next financial crisis.

Every CCP should be required to establish a risk committee, and a majority of risk committee members should be representatives of clearing members. The risk committee of a CCP would establish risk tolerance statements that would be vetted by clearing members and the CCP's board of directors. These statements would establish the nature of the back tests and stress tests performed by the CCP, the assumptions and methodologies used in the tests, and the extent of mutualized loss exposure that clearing members would face if stress scenarios occurred. A CCP's risk committee should report directly to its board and be empowered to make recommendations to the board. While the risk committee's recommendations would be non-binding upon the board, the CCP should be required to report to its local regulator(s) any failure of the board to accept a recommendation of the risk committee on matters regarding risk. By a large measure, the sources of financial stability of the CCP are the margin and guaranty fund contributions made by its clearing members.⁶ It is essential that those whose capital is at

⁶ We refer to our comments "CCP 'skin-in-the-game' contribution to its own financial safeguards package" to principle 4. *See infra* at p. 12.

risk have a majority say in matters affecting the kinds of risk that capital is exposed to. This will result in prudent risk management, with a stabilizing effect upon the financial system.

Public disclosure

A CCP should follow clear rules, established *ex ante*, that govern risk management of open positions as well as the actions clearing members are permitted to perform upon another clearing member's default. In the case of an individual default of a large market participant, the CCP should disclose information to the market on a timely basis but in accordance with its default management process rules and in coordination with relevant regulators, in order to provide clarity to the market about the time of the default and the initiation of the default management process.

The CCP should also clearly spell out in its rules and procedures the requirements and notifications needed in order for a clearing member to withdraw from the CCP following another clearing member's default, so that they are transparent to all its participants. Clear withdrawal procedures are a critical component of any limited liability framework.

Periodic testing and review of participant-default procedures

An FMI should perform periodic default management testing (at least quarterly), and it should share the results of such testing with its board of directors, risk committee, and regulators.

Trade repositories (TRs)

It would be appropriate for the principles to require the establishment of a single TR per asset class globally. Without a single global TR per asset class, there is a significant risk that regulators will only be able to achieve a complete view of the market if they have established the means to aggregate data across multiple TRs. Indeed, a proliferation of multiple TRs per asset class will present very significant challenges for the industry to deliver accurate data analysis to regulatory supervisors.

In the absence of a single TR per asset class globally, it may be possible to approximate a global TR if TRs (i) standardize format, data access, infrastructure, and reporting, (ii) have the ability to accept trade feeds from one another (so that market participants could feed their trade data through one channel where multiple reporting is required, (iii) have the ability to process feeds from existing commonly used electronic confirmation platforms, and (iv) facilitate regulators' access to local TRs.

Exchanges and other trade execution facilities

CPSS-IOSCO notes that the principles in the report "are not addressed to other types of market infrastructures, such as trading exchanges, trade execution facilities or multilateral trade-compression systems," but adds that "relevant authorities may decide to apply some or all of [the] principles to them."⁷ We are in favor of expanding application of the report's principles to exchanges, SEFs, and organized trading facilities (referred to herein collectively as "Exchanges") where applicable, as a way to protect CCPs and other FMIs. Alternatively, if CPSS-IOSCO does not expand coverage of the principles to Exchanges, we would urge it to add an annex to the report, comparable to Annex F (relating to oversight expectations applicable to critical service providers). It would be appropriate for this new annex to recommend that regulators, supervisors, or overseers of FMIs establish criteria applicable to Exchanges in order to support the FMIs' overall safety and efficiency.

⁷ *Consultative Report, supra* note 1, at 5, note 2.

Exchanges pose a source of systemic risk for CCPs and their participants, which are reliant on Exchanges for the provision of data regarding executed trades. If an Exchange suffers an operational failure, CCPs and their participants may not be able to properly manage their risk⁸: among other things, clearing members may not be able to submit trades for clearing, CCPs may not be able to calculate margin or guaranty fund levels, and participants may find their hedging strategies delayed or disrupted. CCPs and their participants that are not able to manage their risks as a result of the operational disruption of an Exchange are themselves exposed to an increased risk of failure. This risk is heightened in the case of CCPs and Exchanges that are vertically integrated (but it is also a risk in non-vertically integrated models).

The CPSS-IOSCO principles would be an effective medium for decreasing systemic risk potentially caused by Exchanges. In addition, internationally recognized standards should be developed for Exchanges in the following areas:

- (i) Clear governance principles to promote Exchange accountability and systemic stability;
- (ii) Change-control risk management to regulate Exchange technology rollouts and other mission critical developments;
- (iii) Market-wide Exchange trading standards to enable trading on other Exchanges if an Exchange experiences a technical failure;
- (iv) Less vertical integration among Exchanges, CCPs, and middleware and technology providers (which would also likely facilitate more open access to these venues);
- (v) On-site testing reviews by regulators;
- (vi) Clearly documented procedures and processes, established *ex ante*, for crisis management and resolution of Exchanges;
- (vii) A requirement that an Exchange's contingency fund absorb losses incurred by market participants caused by a critical operational disruption; and
- (viii) Recovery and contingency plans based on the specific characteristics of traded asset classes (e.g., futures vs. over-the-counter) and trading execution method (e.g., central limit order book vs. request for quotes).

Tailored principles for different FMI types

In order to provide clarity with respect to application of the principles to FMIs and their stakeholders and to avoid the risk of inadvertently subjecting entire classes of FMIs to inapposite principles, we would recommend that CPSS-IOSCO consider tailoring the principles to FMI types to a greater degree and differentiating more specifically by FMI type when principles apply only to a single type or limited number of types of FMIs and when principles apply to all FMIs.

We understand that the methodology that will be applied to assess compliance with the principles is under development. We respectfully note that the assessment methodology should take into consideration the

⁸ A relatively recent example of a systems failure at a major international Exchange highlights the systemic risk posed to CCPs by Exchanges. In April of this year, a major Exchange experienced technical difficulties during the roll-out of a technological system, and it was unable to supply its clearinghouse end of day trading prices on Monday, April 18. The clearinghouse was unable to calculate initial and variation margin and was forced to use end of day trading prices from the previous Friday, April 15, as proxies. Because of the incident, the clearinghouse continued to have processing difficulties through Wednesday, April 20, and it was still working with clearing members to resolve residual issues as late as Tuesday, April 26. See http://www.lchclearnet.com/member_notices/circulars/2011-04-19.asp; http://www.lchclearnet.com/member_notices/circulars/2011-04-20.asp; and http://www.lchclearnet.com/member_notices/circulars/2011-04-26.asp.

differences between different types of FMIs. We would encourage that the assessment methodology be published in draft form for public consultation before it is released in final form.

Global coordination

We are encouraged by the efforts of regulators globally to ensure that there are no inconsistencies in the implementation timeframes of the multiple global regulatory initiatives and the finalization of the principles. We would like to emphasize that global coordination is critical for reducing systemic risk.

2. COMMENTS RELATING TO SPECIFIC PRINCIPLES

PRINCIPLE 1: LEGAL BASIS

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

Legal opinions

We believe that FMIs should be required to obtain legal opinions articulating the legal basis for each aspect of their activities and to share these legal opinions with their participants as a means of promoting legal certainty and transparency. In the case of CCPs, these legal opinions or analyses should cover, among other things, the enforceability of netting arrangements, including the enforceability of close-out netting in the event of a default by a clearing member or a default by the CCP.

Novation

In our view, the novation of transactions should occur immediately upon their execution. CCPs clearing swaps should seek to minimize any delay in novation so that bilateral counterparties avoid taking overnight credit risk to one another. Going forward, as swaps clearing further matures operationally, CCPs should work with the industry to eliminate any novation delays following execution between original bilateral counterparties.

Clearinghouses as CCPs

We note that some clearinghouses are facilitators of transactions and do not perform the role of CCPs. This is a common clearinghouse model in some securities markets and some futures and options markets, particularly in developing financial systems. We support establishing reasonable timeframes in which those entities would become actual central counterparties or direct counterparties to trades. In some cases, implementing these changes would require a change to local laws and regulations.

PRINCIPLE 2: GOVERNANCE

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

Role and composition of the board of directors

We share CPSS-IOSCO's focus on independence of an FMI's board from its management. However, we urge CPSS-IOSCO to clarify that independence from management does not mean that an FMI must

exclude from its board representatives of its participants or other interested parties.⁹ Additionally, we encourage CPSS-IOSCO to modify the principles to call for an appropriate level of participant representation on FMI boards.

Prohibiting an FMI from including on its board representatives of its participants (whether direct or indirect) or other stakeholders would be problematic to implement in practice because it could be difficult to identify a sufficient number of individuals who have sufficient expertise and an appropriate level of practical market experience to serve on the FMI's board. Putative independence, unaccompanied by expertise and experience, could result in a board member who is not only beholden to management for his or her board seat but also dependent on management for an understanding of the FMI's business and risks.

We would note that participant representatives may constitute all or a significant portion of the boards of some FMIs, such as user-owned, not-for-profit payment systems or CSDs. Moreover, as explanatory note 3.2.4 observes, some FMIs may maintain a two-tier board system in which a supervisory board comprises all non-executive directors. These non-executive directors may be participant representatives. It is important that these well-established governance structures not be up-ended inadvertently by application of the principles.

In the case of other FMIs (such as CCPs and Exchanges) in respect of which there may be heightened sensitivities to perceived conflicts of interest, we believe that board independence is best ensured by encouraging a balance of views being represented on the board. In our view, the desired balance between different interests can best be achieved by identifying different classes of interested parties and encouraging a diverse representation of those interests in the board, rather than prohibiting participant representation. This would be accomplished by prohibiting any single class of interested parties from holding more than 65% of the seats on the board. In the case of CCPs, the classes would be (1) clearing members whose capital is at risk if another clearing member or one of its clients fails; (2) end-users, who have an interest in protecting their collateral and in keeping clearing costs low; and (3) other investors and infrastructure providers (e.g., technology providers and Exchanges), who have an interest in increasing profitability. These limitations would have the added benefit of promoting open access to CCPs, Exchanges, and other FMIs.

Risk-management governance

Explanatory note 3.2.12 states that “an FMI should consider the case for a board risk committee, and a CCP, in particular, is expected to have such a risk committee or its equivalent. A risk committee should be chaired by a sufficiently knowledgeable independent board clearing member and consist of a majority of board clearing members that are independent of management. The committee should also have a clear and public mandate and operating procedures.”¹⁰

⁹ We are relatively confident that it is not CPSS-IOSCO's intent to require exclusion of participant representatives from FMI boards given the statement in explanatory note 3.2.15 that “[m]echanisms for involving stakeholders in the board's decision-making process may include user representation on the board . . .” *Consultative Report, supra* note 1, at 27. However, we believe that this clarification is warranted because of the importance of participant representation on FMI boards.

¹⁰ *Id.*

We urge CPSS-IOSCO to clarify that for an FMI that is either (1) a CCP or (2) an international CSD (“ICSD”)¹¹ that provides non-operational risk activities, the requirement for risk committee members to be independent of management would be satisfied if the majority of its risk committee were composed of participant representatives, irrespective of whether participants have representatives on the FMI’s board of directors.

More specifically, with respect to CCPs, we support a framework in which the majority of the risk committee of a CCP is composed of representatives of clearing members whose capital is at risk through loss mutualization, irrespective of whether such clearing members have representatives on the CCP’s board of directors. We note that in some jurisdictions proposals are being discussed to restrict the representation of clearing members on a CCP’s board of directors. In circumstances where that is the case, clearing members should still be able to be represented on a CCP’s risk committee.

In jurisdictions where clients are exposed to some degree of loss mutualization, such as in the U.S. in the case of the U.S. Futures Model,¹² it would be appropriate for clients to be represented in the risk committee. In any case, clearing members whose capital is at risk should still hold a majority of the seats on the risk committee. Moreover, clearing members should have a majority say in matters that potentially affect their capital, which forms the basis of the CCP’s financial safeguards package. The list of matters that would be appropriate for a clearing member’s majority vote include the size and composition of the guaranty fund and how CCP losses are allocated to clearing members. In our view, a CCP’s board of directors could retain the right to overrule the risk committee, but if the board overrules the risk committee on risk matters, the board should be required to notify the CCP’s regulators, and should provide a detailed analysis of the reasons that prompted the board of directors to overrule the risk committee.

PRINCIPLE 3: FRAMEWORK FOR THE COMPREHENSIVE MANAGEMENT OF RISKS

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

With regard to key consideration 2, we would encourage the establishment of clear rules and procedures by CCPs permitting clearing members to promptly stop the acceptance of new trades by the clearing member on behalf of indirect participants. This is to allow clearing members and CCPs to stop the creation of additional trades and risks by such indirect participants.

With regard to explanatory note 3.3.6, we would highlight that risk management of interdependencies is key and needs to be linked to governance. Any change in FMI strategy that would create substantial interdependencies and related risks needs to be subject to formal risk review and board approval.

¹¹ An ICSD is a CSD that “clears and settles international securities or cross-border transactions in various domestic securities. At the moment, there are two ICSDs located in EU countries, Clearstream and Euroclear.” *CPSS Glossary, supra* note 4, at 27.

¹² We refer to our comments on principle 14 (segregation and portability) for a description of the U.S. Futures Model. *See infra* at p. 20.

PRINCIPLE 4: CREDIT RISK

An FMI should effectively measure, monitor, and manage its credit risk from participants and from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. A CCP should also maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the [one/two] participant[s] and [its/their] affiliates that would potentially cause the largest aggregate credit exposure[s] in extreme but plausible market conditions.

Credit risk in CCPs

As an alternative to either a cover one or a cover two requirement, we recommend that the principles require that the amount of a CCP's financial resources be determined using a "defaulter pays" model. Under a defaulter pays model, the amount of financial resources provided to a CCP by each of its participants – whether a clearing member or an indirect participant – would be set at a level sufficient to cover, with a very high confidence factor, the losses caused by the participant in the event of its default under extreme but plausible circumstances. The financial resources provided by a clearing member would be the clearing member's initial margin (held in the house account) and its guaranty fund contributions. The financial resources provided by an indirect participant would be the initial margin held by the CCP for the indirect participant (held in the clearing member's client account at the CCP).

We believe that an appropriate confidence factor would be at least 99.9%. Thus, for a clearing member, the amount of its initial margin would be sized to satisfy at least a 99% confidence factor, and the amount of its initial margin and guaranty fund contributions combined would be required to satisfy at least a 99.9% confidence level. For an indirect participant, initial margin would be required of it in an amount sufficient to reach at least a 99.9% confidence level. This confidence factor could be assessed on a "per account" basis so that in circumstances where there is no loss mutualization between clients (irrespective of whether the accounts are operationally commingled), each client would post to its client account at the CCP collateral required to cover expected losses with a 99.9% confidence factor. In structures that implement a loss mutualization feature between clients, such as the U.S. Futures Model, the 99.9% confidence factor would be assessed taking into account the overall risk position within the client account, which may benefit from risk offsetting positions. It would be appropriate for the principles to state that the rules of a CCP should require adequate margining of all positions, including direct participants as well as indirect participants. This would be a key step to ensure the safety and stability of the CCP and to avoid a recourse to risk mutualization in situations where the defaulter should pay.

We believe that sizing the amount of a CCP's additional financial resources using a defaulter pays model rather than either a cover one or cover two requirement results in finer calibration of risk presented to the CCP by a participant and the financial resources that the participant is expected to provide the CCP. A cover one or cover two requirement would size the amount of additional financial resources in a fairly arbitrary fashion from the perspective of clearing members other than the one or two with the largest exposure(s). Under the defaulter pays model, since for each direct or indirect participant the amount of financial resources provided by it is determined by reference to the risk it brings into the CCP, there is less chance that the CCP could have insufficient resources to cover its exposure to that participant and to all participants in the aggregate.

Measuring and monitoring credit risk

A CCP's determination of the coverage level appropriate for it should be made by its risk committee, and its local regulator(s) should be responsible for monitoring such determination. At a minimum, we recommend taking these risk factors into account: (i) price volatility and price transparency of products cleared and collateral held by the CCP; (ii) overall risk concentration within the CCP; (iii) length of the liquidation or close-out period of products cleared by the CCP; (iv) correlation of default probability of the CCP's clearing members, products cleared and collateral held by the CCP; (v) concentration of risk within a few clearing members (as opposed to risk more dispersed among the clearing member population); and (vi) the proportion of a CCP's funded versus unfunded guaranty fund contributions.

We set out below the reasons why in our view a defaulter pays model is more useful than either a cover one or cover two requirement as a way to establish the required amount of a CCP's financial resources.¹³

First, while we agree that a CCP should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios identified in regular and rigorous stress testing, CCPs and their regulators should not view satisfaction of a quantitative standard such as the cover one or cover two requirement as a substitute for prudent risk management and regulatory supervision. A CCP must perform the requisite risk management, and its local regulator(s) should engage in the appropriate supervision, to determine the level of minimum additional financial resources for the CCP. The CCP and its regulator(s) should size the amount of the CCP's additional financial resources based on an assessment of risk factors applicable to the CCP, such as the creditworthiness of its clearing members and the products it clears. Such an assessment could result in the conclusion that satisfaction of even a cover two requirement would be insufficient for the CCP.

Second, while we believe that, all other things being equal, satisfying a cover two requirement would result in a safer, more prudent outcome than meeting a cover one requirement, this conclusion would depend greatly upon the assumptions a CCP uses in running the relevant stress scenario. One could imagine a case in which one CCP implemented a cover one standard with extremely conservative model assumptions and exceptionally rigorous back and stress tests and another CCP satisfied the cover two approach using less stringent standards. It could very well be the case that the first CCP would achieve greater coverage than the second. We would argue that it is more important for CCPs to establish rigorous back and stress tests (which have effective regulatory oversight), sufficient risk methodology disclosure and continuous industry review of risk standards, rather than to adopt a cover two standard without these practices in place.

Third, we believe that consideration should be given to potential unintended consequences of adopting a standard such as the cover one or cover two requirement. For example, if the cover two requirement were mandated, how would the market react once a CCP has exhausted its additional financial resources in covering the default of a clearing member? Would the market lose confidence in the CCP's ability to cover future defaults?

¹³ Principle 4 requires a CCP to cover its current credit exposures and its potential credit exposures to each of its participants fully with a high degree of confidence using margin and other financial resources. Principle 4 also requires a CCP to maintain financial resources, such as a prefunded default arrangement (a "guaranty fund"), in addition to margin, sufficient to cover a wide range of potential stress scenarios identified in regular and rigorous stress testing. As a general matter, margin is intended to cover expected risk of loss, while additional financial resources, such as a guaranty fund, are intended to cover incremental "tail risk" associated with unexpected loss identified in stress testing.

Stress testing

A CCP should conduct daily stress tests to assess the adequacy of its guaranty fund in the event of a default in extreme but plausible market conditions. Any clearing member whose guaranty fund liability materially increases (by more than 10%) during the period between guaranty fund contribution due dates, should be required to post incremental collateral that same day rather than waiting until the next due date for guaranty fund contributions. The reason for this requirement is that the increased guaranty fund liability of the clearing member is caused by that clearing member's having increased materially the risk profile of its portfolio. We propose that such additional collateral be posted in the form of initial margin until the next call for updated guaranty fund contributions by all clearing members so that the additional contribution would not be subject to loss mutualization in case of default by another clearing member, but would be accessible by the CCP if the clearing member posting it experienced a default.

Contingency planning for uncovered credit losses

We urge CPSS-IOSCO to state that each CCP should provide for a capped liability structure in its rules.

A capped liability structure enables clearing members to measure and manage their risks to CCPs and enables their regulators to more easily monitor those risks. It is essential to ensuring systemic stability. If clearing member capital requirements are being lowered to encourage open access, it is critical for regulators to be able to monitor whether a clearing member can meet margin and guaranty fund calls at all CCPs they face. If clearing members are unable to meet these calls, the members and the CCPs they face are exposed to risk of default. If even a single one of the CCPs that a clearing member is facing has an unlimited liability, "good to the last drop" structure, there is no way to quantify the clearing member's exposure to all the CCPs it faces. In addition, a capped liability structure will encourage clearing members to continue clearing in a crisis as they will not be exposed to the risk of unlimited liability through loss mutualization. A good to the last drop structure could introduce systemic instability if clearing members prefer to keep risk bilateral (if possible) or withdraw liquidity from the market rather than increase their exposure to the CCP. In our view it is appropriate for CPSS-IOSCO to recommend that CCPs should implement a capped liability default management structure that limits potential clearing members' losses to their guaranty fund contributions, both funded and unfunded.¹⁴

Non-defaulting clearing members should only be exposed to losses that they can anticipate and that they have the means and incentive to control. While some degree of loss sharing (funded plus unfunded amount) may be required, such loss sharing should be limited to the proportion of the risk a clearing member brings to the CCP as determined by appropriate stress tests. It is appropriate to cap exposure of non-defaulting clearing members to guaranty fund assessments by the CCP.¹⁵

If a CCP has exhausted its financial resources and its available funds are insufficient to cover losses as a result of one or more clearing member defaults or it holds residual open positions of one or more

¹⁴ See *Interagency Supervisory Guidance on Counterparty Credit Risk Management* at 16 (June 29, 2011), <http://www.fdic.gov/news/news/press/2011/pr11113a.pdf>. We agree with explanatory note 3.3.5, which states that an FMI should provide incentives for its participants to identify, measure, and manage their own risks. In our view, transparency in a CCP's risk management processes is critical. Principle 3, however, does not specifically require CCPs to provide for a capped liability structure so that clearing members can measure and manage their risks to CCPs. Only a capped liability structure can provide each clearing member with the ability and incentives to manage its counterparty exposure, through the CCP, to other clearing members of the CCP.

¹⁵ In our view, it is appropriate to cap a clearing member's exposure to both a single default and a series of defaults that occur during a pre-defined number of days, with the day count rolling from the day of the most recent default, until a full period expires without the occurrence of a default. This approach aims at capturing all defaults related to one systemic crisis and subjects the sequential defaults to the same overall cap.

defaulting members following a competitive auction or other liquidation process, a CCP should not be permitted to force the allocation of open positions to its participants, and clearing members should not be legally obligated to make the CCP whole by any other means. Should this point be arrived at and no agreement is then reached by non-defaulting clearing members and the CCP on the most appropriate loss sharing arrangement or CCP re-capitalization plan to cover the excess loss amount, then all open net positions of the CCP should be closed out. Each non-defaulting clearing member's claim should equal its pro rata share of the CCP's claim against the defaulting clearing member's estate.

In the case of a CCP clearing more than one asset class, it is appropriate to ring-fence the financial safeguards package securing certain each asset classes from the risk of a wind-down of the CCP because of losses encountered in another, unrelated, asset class. Depending on the jurisdiction of organization of the CCP and on the jurisdiction where the collateral is held, it may be necessary to establish separate legal entities within the same CCP for purposes of achieving full segregation of the CCP's collateral securing different asset classes cleared by the CCP.

A CCP's procedures regarding replenishment of its financial resources must address replenishment of the CCP's own contribution, as well as the replenishment of its clearing members' contributions.

CCP “skin-in-the-game” contribution to its own financial safeguards package

The implementation of prudent risk management methodologies by CCPs is a key step towards greater systemic stability. In our view, a prudent risk management methodology of any CCP should include establishing a direct link between the earnings that a CCP derives from clearing activity and the contribution of the CCP to its own financial safeguards package. We would support standards that require a CCP to retain in a segregated deposit account, on a rolling basis, 50% of the earnings from the previous 4 years. We observe that this amount would represent approximately 10% of the CCP's enterprise value, therefore achieving a reasonable balance between risk and reward for CCP shareholders. In addition, it would be appropriate for at least 50% of the retained earnings to have a first-loss position in the CCP's financial waterfall. This solution would accomplish the goal of greater systemic stability and would scale over time the contribution by the CCP to its own financial safeguards package without large decreases or increases at any one resizing date. We recommend that the CCP's contribution be subject to a minimum floor of \$50 million, to provide adequate protection and provide increased confidence in the markets while market participants ramp up access to clearing services.

PRINCIPLE 5: COLLATERAL

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

Protection of participant collateral from FMI insolvency risk

We encourage CPSS-IOSCO to consider addressing, in principle 5 or elsewhere in the report, protection of participants' collateral (particularly excess collateral held by FMIs) against the insolvency risk of an FMI or its custodian, either through segregation or other means.¹⁶ In this regard, we support clear

¹⁶ This principle was addressed with respect to CCPs by the Basel Committee on Banking Supervision in its consultative document *Capitalisation of bank exposures to central counterparties* (see *Capitalisation of bank exposures to central counterparties*, ¶ 115, at 11 (proposed December 2010), <http://www.bis.org/publ/bcbs190.pdf>). In our view, the principle has wider applicability than to just CCPs: any FMI that requires collateral or other forms of margin needs to adhere to these principles and provide adequate protection with respect to the collateral it holds.

limitations on the circumstances in which FMIs should have the ability to re-hypothecate or otherwise use clearing member securities collateral and do not believe that this should be a business-as-usual risk management tool. More specifically, FMIs should only have the ability to re-hypothecate or re-use defaulting participant securities collateral in order to raise liquidity in the event of one or more participant defaults if immediately liquidating the collateral would lead to severe asset value depreciation. The report currently does not directly state whether FMIs should be permitted to re-hypothecate or re-use clearing member collateral, but explanatory note 3.5.7 states that “a collateral management system should track the extent of reuse of collateral (both cash and non-cash)”¹⁷ and explanatory note 3.16.4 states that “an FMI’s investment risk-management strategy for investing participants’ assets should be consistent with its overall risk-management strategy and fully disclosed to its participants.”¹⁸

Acceptable collateral

Collateral plays a key role in providing systemic stability and a fundamental component of an FMI’s risk management framework. Each FMI should implement a strict discipline around the type of collateral it accepts, keeping in mind that different considerations apply to different markets and products.¹⁹

With respect to CCPs, it is essential that variation margin, which secures current exposure, be posted in cash denominated in the currency of the position or the instrument that is being secured by the collateral. In the case of initial margin, which secures potential future exposure, we support the principle, stated in explanatory note 3.5.2, requiring an FMI’s eligible collateral to present “low credit, liquidity, and market risk.”²⁰

In our view, it would be appropriate for the principles to specify the objective criteria that must be satisfied by an instrument in order for it to qualify as collateral with low credit, liquidity, and market risk. We believe that collateral with low credit, liquidity, and market risk satisfies the majority of these four criteria:

- (i) demonstrable and measurable high market liquidity or trading volume (by objective and independent standards);
- (ii) low price volatility and high transparency of pricing (prices are frequently quoted, and valuation is easily evidenced and verifiable);
- (iii) high credit quality; and
- (iv) low correlation with the underlying exposure being collateralized.

In our view, haircuts on the collateral at the CCP should be based upon appropriately stressed and potentially dynamic volatilities, rather than on a predetermined set of acceptable assets.

Examples of collateral that satisfy these criteria include (1) cash, in the currency of denomination of the underlying instrument or that in which the relevant transactions are settled, and U.S. Dollars, Euros, Japanese Yen, and British Pounds; and (2) obligations issued or guaranteed by the sovereign entity in the jurisdiction in which the CCP is incorporated or other sovereigns obligations rated “A” or higher. In our view, the obligations of certain government-sponsored entities could be eligible if they satisfied the criteria specified above. Limiting collateral to these types along with minimum cash thresholds and maximum concentration thresholds by individual issuer and maturity range types would help ensure both

¹⁷ *Consultative Report, supra* note 1, at 39.

¹⁸ *Id.* at 75.

¹⁹ By way of example, collateral suitable to secure uncleared transactions may not be suitable for posting to a CCP.

²⁰ *Consultative Report, supra* note 1, at 38.

adequate liquidity and loss coverage at a CCP in the event of a clearing member default. Acceptable collateral should also be rated at least “A” and be subject to conservative haircuts.

A key issue currently debated in the industry is whether it is prudent for CCPs to accept corporate bonds and equities as collateral. Mindful of the strain upon liquidity that may result from limiting CCP eligible collateral to the non-cash assets described in the foregoing paragraph, as well as from competing uses for such assets as uncleared swaps collateral under proposed rules in the U.S. and the European Union and the Basel III reforms, we believe that discussion is warranted regarding the expansion of eligible collateral types, and we would encourage CPSS-IOSCO to provide clear guidance on this issue in the finalized principles.

We support the principle expressed in explanatory note 3.5.2 that “participants should not be allowed to post their own debt or equity securities, nor bonds or equity of companies closely linked to them as collateral.”²¹ We are also supportive of efforts to manage wrong-way risk. Currently, this risk is managed through membership rules and strict collateral eligibility criteria. In our view, these are adequate tools, and we would welcome further guidance from CPSS-IOSCO as to additional approaches to managing wrong-way risk.

Valuing collateral

With respect to explanatory note 3.5.3, in our view, collateral haircuts should be monitored daily to ensure collateral adequacy and updated as needed, with an independent validation of an FMI’s haircut procedures conducted quarterly. For this reason we recommend substituting the expression “at least on a yearly basis” with “at least on a quarterly basis” in explanatory note 3.5.3.²²

Additional points

We would encourage CPSS-IOSCO to address situations in which participants cannot provide collateral (e.g., sovereigns and supnationals, as well as custodians and asset managers that are not the owners of the collateral) and the possible risks and risk mitigants for FMIs.

We believe that it would be beneficial to add in explanatory note 3.5.1 or elsewhere in the report that an FMI, when liquidating collateral, should avoid implementing a liquidation schedule that would potentially result in its obtaining fire-sale prices for the collateral. Additionally, an FMI should not be permitted to block any more collateral that it can demonstrate is reasonably required to cover a specific default.

PRINCIPLE 6: MARGIN

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

We refer to our comments below with respect to principle 14 (segregation and portability).²³

Limiting pro-cyclicality

We agree that the best way to avoid the pro-cyclical effects of a CCP’s increasing margin requirements in a crisis is for the CCP to be adequately collateralized in the course of its business-as-usual operations.

²¹ *Id.* at 38.

²² *See id.*

²³ *See infra* at p. 20.

Cross-margining

Explanatory note 3.6.13 describes cross-margining as follows: “Two or more CCPs may enter into a cross-margining arrangement, which is an agreement among the CCPs to consider positions and supporting collateral at their respective organizations as a common portfolio for participants that are members of both organizations.”²⁴ We refer to our comments to principle 20 on FMI links.²⁵ We believe that any cross-margining arrangement should also address the following:

Division of cross-margining benefits; collateral custodial arrangements

CCPs participating in a cross-margining arrangement would need to agree how to divide between them the collateral reduction benefits resulting from the arrangement (i.e., the amount of collateral savings that is achieved) and where to hold the collateral of the common clearing member participating in the arrangement and its clients (i.e., with which CCP or third-party custodian). For example, if a cross-margining arrangement results in margin savings of \$100 million for a given common clearing member, the CCPs involved in the arrangement would need to establish how this amount would be divided (e.g., \$50 million less collateral posted to each CCP or \$60 million less collateral posted to CCP 1 and \$40 million less collateral posted to CCP 2 or some other division). This division should be proportionate to the amount of losses that each CCP will accept in the event of a clearing member default. This presupposes clear *ex ante* rules and limited liability of clearing members to CCPs.

Management of participating clearing member’s default

In the event of a default by a common clearing member participating in cross-margining, the two CCPs would need to coordinate the simultaneous liquidation of that clearing member’s portfolio. During such coordinated, simultaneous liquidation, both CCPs would need to be cognizant of maintaining matched hedged trades that are unwound together so as not to increase the net position or market risk of the portfolio (by liquidating one half of the hedged pair before the other).

Allocation of liquidation losses and profits

Once the liquidation process is complete, it is likely that each CCP would have different liquidation losses or profits due to market movements. Thus, as part of the cross-margining arrangement, the CCPs would need to establish a plan for how to equitably share such losses or profits. It would be possible to mandate payment from the better-off party to the worse-off party. For example, if CCP 1 receives 60% of the margin reduction with respect to a given common clearing member, then it should be allocated 60% of the liquidation losses in the event of that common clearing member’s default, while CCP 2 should be allocated only 40% of the losses. In some cases, loss caps may be appropriate, in order to take into account the amount, as well as the percentage, of the cross-margining collateral reduction benefit. Payment should be made from the better-off CCP to the worse-off CCP until this proportionate division of losses is achieved. The CCPs would need to plan for the possibility of having to tap into their respective waterfalls to accomplish equitable payment from the worse-off party to the better-off party until the correct proportion of losses is achieved. Note that it would be equitable for each CCP to end in suffering a loss, so long as their losses are proportional to allocation of the cross-margining collateral reduction benefit.

²⁴ *Consultative Report, supra* note 1, at 44.

²⁵ *See infra* at p. 27.

The liquidation process in the context of cross-margining could raise practical considerations, and cross-margining arrangements will require substantial supervisory involvement to ensure that they do not result in races to the bottom. Whether any proposed cross-margining arrangement is appropriate will depend on the specific characteristics of each market.

Testing margin coverage

Stress testing of initial margin coverage at the clearing member and the individual client level should be performed daily. Monitoring of client concentrations should be at the aggregate level across all clearing members through which the client clears.

PRINCIPLE 7: LIQUIDITY RISK

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

Maintaining sufficient liquidity resources

We acknowledge that completion of final settlement by the end of an FMI's business day on the value date or value dates is essential. Deferral of final settlement to the next business day can create credit and liquidity pressures and potentially systemic risk.

As is the case with credit risk, a single approach to liquidity risk management cannot be applied across all FMIs. In this section we will focus our comments on CCPs, given the systemic importance of CCPs at this juncture of the evolution of global financial markets

Mandating coverage of the two largest clearing member corporate groups would require a significant draw on liquidity from the market. The decreasing availability of credit and the wrong-way risk inherent in drawing on committed liquidity during periods of market stress would be exacerbated by requiring coverage for the CCP's top two corporate groups and would result in a significant increase in required liquid deposits, thus introducing systemic risk to the marketplace.

We recommend the following principles with regard to CCP liquidity:

Stress scenarios

It is not clear that, as of today, most CCPs would have the requisite liquidity to meet the required margin payments and to effect the same-day close out or hedging of the two participants and their affiliates with the largest potential open positions.²⁶ However, for a CCP that determines that given its particular circumstances and risks, a stress scenario could require coverage of the two participants and their affiliates with the largest potential open positions, the CCP should undertake efforts to plan for such a scenario.

²⁶ In the case of CCPs clearing FX products, the required liquidity coverage is likely to be substantial, given the need for a CCP clearing FX to support physical settlement of contracts.

The “enhanced cover one” requirement

CCP liquidity needs should be assessed via well-governed, rigorous stress tests that cover the failure of the participant and its affiliates with the largest potential open positions. However, we recommend an “enhanced cover one” minimum requirement that assesses the CCP’s liquidity needs to meet required margin payments and to effect the same-day close out or hedging of the participant and its affiliates for each value date during the liquidation period. The liquidation period would begin on the day of the participant’s default and would end on the last day of the longest settlement period applicable to positions of the participant and its affiliates open on the default date.²⁷

A CCP stress test conducted on a daily basis with reference to each value date may result in a different clearing member representing the largest exposure for that CCP on different days. The liquidity test should be aimed at covering the cash needs of the CCP following the failure of the largest defaulter on any given value date across the longest settlement period applicable to the CCP.

Given the need to reflect the settlement cycle, the enhanced cover one model should reflect the aggregate of the single-day high points to cover the gross settlement needs of the clearing member representing the highest exposure per asset class. If the CCP clears different products and there is a shared guaranty fund, different clearing members may be the largest defaulter for different asset classes.

In our view, the “enhanced cover one” principle would provide adequate coverage for liquidity risk and would be compatible with the “defaulter pays” model applicable to credit risk.

Liquid collateral

CCPs should maintain sufficient liquidity by requiring clearing members to post a minimum amount of liquid margin (cash and qualifying government securities) and guaranty fund contributions with their CCPs. Alternatively, all clearing members should be invited to participate in a liquidity facility. The liquidity facility should also be open to creditworthy market participants that are not clearing members.

Committed liquidity facilities

A CCP should arrange a committed collateral liquidity facility, from a diversified group of providers (which may include the clearing members of the CCP), with an aggregate commitment amount not less than the largest clearing member family exposure and a cushion to cover a potential default by at least one of the liquidity facility providers. A CCP should have the ability to repo or rehypothecate a defaulting clearing member’s securities so that it may avoid having to liquidate the securities at a deep discount in a temporarily dislocated market environment. Establishing formal, committed repo financing facilities should also be encouraged.

Payment grace

We note that CCPs typically have the ability under their rules to defer payment by up to three business days. In our view, this grace period is appropriate.

Allocation of liquidity shortfalls

It would be appropriate for each CCP to have clear *ex ante* rules for the ratable allocation of liquidity shortfalls, which should be distributed pro rata between participants in a predictable manner. The goal of

²⁷ A clearing member will be entering into transactions every business day, with settlement occurring in some cases on the same day. Settlement will occur more typically a certain customary number of days after the trade date (T+1, T+3, etc.), depending on the convention and regulatory framework for each market.

appropriate liquidity coverage should be to avoid the tearing up of CCP cleared trades following the default of a CCP that is sufficiently capitalized but lacks the necessary liquidity to cover more than one default. Tearing up trades cleared by a solvent CCP would have a negative systemic impact. For this reason, it seems appropriate to us to explore what is the appropriate allocation of this liquidity risk among market participants and it seems that ratable distribution is appropriate.

Measuring and monitoring liquidity risk; pre-arranged funding arrangements

A CCP should have at its disposal effective tools to measure and control the shift from intraday into overnight liquidity.

PRINCIPLE 8: SETTLEMENT FINALITY

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

Final settlement

Given the importance of settlement finality to the smooth operation of transactions involving FMIs, particularly cross-border transactions, we believe that FMIs should be required to obtain (and share with their participants) well-reasoned legal opinions to establish the point at which settlement finality takes place.

We also encourage CPSS-IOSCO to consider adding a statement about the desirability of achieving global consistency between legislative and rule making bodies on the definition of the point in time at which settlement finality takes place from a legal point of view.

PRINCIPLE 9: MONEY SETTLEMENTS

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

Central bank money

In our view, it is important to draw a distinction between two different roles played by the central bank – as a funding facility and as a cash clearing facility through which cash and currency transactions in the local currency are cleared and settled. For CSDs, we support the role that central banks play in providing the facility through which the cash component (in the local currency) of a securities transaction is cleared and settled.

We do not support requiring access to central bank funding for either CSDs or CCPs. In our view, both CCPs and CSDs should rely on adequate support from commercial bank money rather than relying on a socialization of losses through central bank liquidity in a crisis.

We believe that a CCP should not be required to have direct access to central bank liquidity in the currency of denomination of a contract for the CCP to be able to clear the contract, provided that the CCP is able to avail itself of sufficient liquidity through (and manage the credit and liquidity risk arising from) commercial bank money. Some very well established CCPs have been providing clearing services in a prudent manner and absorbing losses resulting from critical defaults while not relying on central bank

money. It would not be in the interest of systemic stability to prevent these CCPs from continuing to provide clearing services simply on the basis of the theory that access to central bank money is required.

CCPs should be very highly capitalized, not only through contributions of their clearing members but also through their own capital, based on retained earnings or otherwise, as detailed elsewhere in this letter. It is necessary for CCPs to be subject to close regulatory oversight and prudential regulation.

With respect to CSDs, the cash settlement aspect of securities settlement typically takes place on the books of the central bank. We do not support requiring access to central bank liquidity for CSDs. We do support continued access to central bank cash transaction settlement for CSDs.

Typically, CSDs do not provide credit services, and they require little capital. Their core services are settlement of transactions and custody. The cash settlement leg of a transaction settled through a CSD occurs typically through a central bank.²⁸

A CSD is not organized to take credit risk on its own books. In our view, any risk-taking activity of a CSD is extraneous to the core services of the CSD (settlement and custody) and should be conducted from a separate legal entity. This is necessary to avoid the systemic impact of the failure of the core services of a CSD, which would result in the inability of market participants to settle transactions. Moreover, while CSD groups should be free to offer multi-currency commercial bank money settlement as an ancillary service, they should do so only through separate legal entities to ensure that there is no contagion effect on their core services as CSDs.

The analysis is very different for CCPs. Unlike CSDs, the main function of a CCP is to manage credit risk.

PRINCIPLE 11: CENTRAL SECURITIES DEPOSITORIES

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.

ICSDs

We would recommend that the definition in Annex H of “central securities depository” specifically include ICSDs.

Segregation of assets

In our view, segregation of participants’ securities from a CSD’s own assets is key to systemic stability. In addition, we agree with the statement in explanatory note 3.11.5 that a CSD should support “the segregation of securities belonging to a participant’s customers on the participant’s books by providing appropriate accounts and services and facilitate the portability of customer holdings, should the participant default, to another participant.”²⁹

Additionally, ICSDs should require their participants to segregate their clients’ positions from the participants’ proprietary positions. To facilitate portability, accounts and positions of participants’ clients

²⁸ This is the case in all but a limited number of exceptions, which are mostly due to legacy institutional set-ups.

²⁹ *Consultative Report, supra* note 1, at 60.

should not be subject to lock-up by an ICSD. The proprietary positions of an ICSD's participant should be subject to liquidation in the event of the participant's default, but only to the extent necessary to cover the ICSD's exposure to the participant. Excess positions (i.e., over-collateralization) should be returned to the participant or its liquidator as soon as practicable.

Other activities

In our opinion, CSDs should separate legally (through the use of different legal entities) their core services of central safekeeping and administration of securities and settlement from any risk-taking ancillary services to ensure that (a) CSDs do not change their low risk profile with systemic consequences and (b) CSDs are able to diversify their services and continue to innovate. Accordingly, in our view it would not be appropriate for a CSD to act as principal in securities lending transactions, as this would expose the CSD to the risk of counterparty default, operational failure, or legal challenge. We believe that a CSD should only provide securities lending in an agency capacity and preferably out of a separate legal entity. Similarly, if a CSD conducts banking activities and acts as settlement guarantor, it should do so through legal entities that are separate from those conducting its core services, which are systemically important and merit complete segregation from risk-taking activities.

PRINCIPLE 14: SEGREGATION AND PORTABILITY

A CCP should have rules and procedures that enable the segregation and portability of positions and collateral belonging to customers of a participant.

Principle 14 on segregation and portability is only applicable to CCPs. It addresses segregation of a client's positions and related collateral from those of its clearing member as a means of protecting the client from the clearing member's insolvency risk. We would encourage CPSS-IOSCO to consider addressing segregation or other means of safeguarding clients from the insolvency risk of CCPs.

The segregation models

There are four models currently being discussed in the U.S. for purposes of segregating client collateral in the context of cleared swaps.³⁰ The four models are relevant only in the case of a clearing member default that is caused by a default of one or more of its clients. If a clearing member default is not caused by a client default, its clients' collateral would be segregated in all cases and could not be applied to cover losses resulting from the clearing member's default. The four models are:

- (i) The "**U.S. Futures Model**"³¹ (which is currently the model used in the U.S. futures market) where all the collateral posted by the clients of the same clearing member is held in the clearing member's omnibus client account with the CCP. Client collateral is segregated from the clearing member house collateral at the CCP but legally and operationally commingled in the omnibus client account. After simultaneous defaults of the clearing member and one or more of its clients, the CCP can access the collateral of all the clearing member's non-defaulting clients (as well as that of the clearing member and its defaulting client(s) and the clearing member's guaranty fund contributions) in order to cover losses resulting from the clearing member's default, and it is able to do so *before* it applies its own capital or the guaranty fund contributions of the CCP's non-defaulting clearing members.

³⁰ See Commodity Futures Trading Commission, *Protection of Cleared Swaps Customer Contracts and Collateral; Conforming Amendments to the Commodity Broker Bankruptcy Provisions*, 76 Fed. Reg. 33818 (proposed June 9, 2011) (to be codified at 17 C.F.R. pts. 22 and 190), available at <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/federalregister042711b.pdf>.

³¹ See *id.* at 33821.

- (ii) A proposed “**Physical Segregation Model**” (formerly known as the “Full Physical Segregation Model”)³² where collateral posted by each client of a clearing member would be held in a separate, individual account and would be fully segregated legally and operationally from the clearing member’s house collateral and the collateral of the clearing member’s other clients. After simultaneous defaults of a clearing member and one or more of its clients, the CCP could access the collateral of the defaulting client(s), but not that of the clearing member’s non-defaulting clients.
- (iii) A proposed “**Complete Legal Segregation Model**” (formerly known as the “Legal Segregation with Commingling Model” or “LSOC”)³³ where client collateral would be operationally commingled but legally segregated for the benefit of the client that pledges it. After the simultaneous defaults of the clearing member and one or more of its clients, the Complete Legal Segregation Model would permit the CCP to access the collateral of the defaulting client(s), but not that of the non-defaulting clients.
- (iv) A proposed “**Legal Segregation with Recourse Model**” (formerly known as the “Moving Clients to the Back of the Waterfall Model”)³⁴ where client collateral would be operationally commingled but legally segregated for the benefit of the client that pledges it, as it would be in the Complete Legal Segregation Model. However, unlike the Complete Legal Segregation Model, the Legal Segregation with Recourse Model would permit the CCP to access the collateral of the clearing member’s non-defaulting clients following its default, but only *after* the CCP exhausts its own capital and the guaranty fund contributions of its non-defaulting clearing members.

Pros and cons

The U.S. Futures Model, unlike the other models, has the benefit of having been actually utilized in the market for many years. It has been tested and has performed as expected in a number of periods of market stress.

However, it would expose clients to “fellow customer risk,” the risk that the collateral of a clearing member’s non-defaulting clients could be applied to cover losses resulting from the default of the clearing member and one or more of its defaulting clients, and to “investment risk,” the risk that each client would share pro rata in any decline in the value of clearing member or CCP investments of clients’ collateral. The Physical Segregation Model would mitigate fellow customer and investment risk to the greatest degree, but would result in costs that are prohibitive. The Complete Legal Segregation Model would largely mitigate fellow customer risk, and the Legal Segregation with Recourse Model would mitigate fellow customer risk in all but the most extreme scenarios.³⁵ However, neither the Complete Legal Segregation Model nor the Legal Segregation with Recourse Model would mitigate investment risk since under both the CCP and the defaulting clearing member would commingle all clients’ collateral and would not be able to attribute any collateral or investment losses to any given client.

³² See *id.* at 33820, note 18.

³³ See *id.* at 33820, note 16.

³⁴ See *id.*, note 17.

³⁵ Under both the Complete Legal Segregation Model and the Legal Segregation with Recourse Model, since the CCP would allocate collateral between defaulting and non-defaulting clients based on information the clearing member provided the day before its default, such allocation would not reflect movement in the clients’ positions on the day of default. See *id.* at 33826, note 72.

In terms of complexity and operational costs (both upfront and ongoing), the U.S. Futures Model would be the least operationally intensive and would be accompanied by the lowest operational costs, while the Physical Segregation Model would be the most complex and operationally costly, potentially requiring the establishment and maintenance of hundreds of thousands of collateral accounts (and in many cases sub-accounts) at each CCP.³⁶ Compared to the Physical Segregation Model, both the Complete Legal Segregation Model and the Legal Segregation with Recourse Model would be less complex and their operational costs more modest.³⁷ These increased operational costs would be borne ultimately by clients.

While clients under the U.S. Futures Model would be subject to loss mutualization, the other three models would shift the default risk of a clearing member and its clients to other clearing members since their guaranty fund contributions could be used to cover losses that exceeded the value of the collateral of the defaulting clearing member and its defaulting client(s). This risk-shifting has two potential effects. One would be to increase either the amount of guaranty fund contributions by clearing members (since they would bear more risk via the guaranty fund) or the amount of initial margin posted by clients (in order to reduce the risk passed on to guaranty fund contributors).³⁸ The other would be to decrease the incentives to clients to select and clear through more prudently managed clearing members. To the extent that clients selected lower cost clearing members that did not have strong risk management practices, a “race to the bottom” could ensue and market discipline could be eroded over time.

Portability

At first blush, one would assume that the Physical Segregation Model would enhance portability to the greatest degree since the porting client’s collateral would be completely segregated, both legally and operationally and should be portable easily and without delay. Under the other three models, a client could be delayed in porting because its collateral would have to be disaggregated from that of other clients. In addition, under the U.S. Futures Model and the Legal Segregation with Recourse Model (but not the Complete Legal Segregation Model), a porting client could be delayed in accessing its collateral while the CCP determined the amount of losses resulting from the clearing member’s default and whether the porting client’s collateral would be needed to cover any of those losses.

However, in considering the degree to which each model does or does not enhance portability, one should appreciate that portability is never guaranteed. A non-defaulting clearing member would be under no obligation to accept positions of a client wishing to port to it. A non-defaulting clearing member could be particularly wary of accepting positions during market crises if doing so would expose it to funding burdens because of guaranty fund requirements. In this regard, the models other than U.S. Futures Model, all of which one would otherwise assume to be more conducive to enhancing portability, could potentially adversely affect portability for some clients whose portfolio sizes are significant. This could be the case since the other models, when compared to the U.S. Futures Model, effectively transfer the risk of a defaulting clearing member (and its defaulting client(s)) from the clearing member’s non-defaulting

³⁶ Some of these costs include (i) costs to establish and maintain such accounts, (ii) costs to affect separate fund and collateral transfers between such accounts, (iii) costs of account reconciliation, and (iv) costs to establish the information technology infrastructure for such accounts. *See id.* at 33823, note 42. ISDA estimates that under the Physical Segregation Model, a clearing member would incur upfront operational costs of \$33 million and ongoing operational costs of \$136 million, and a CCP would incur upfront operational costs of \$7.5 million and ongoing operational costs of \$40 million. *See id.* at 33823.

³⁷ ISDA estimates that under the Complete Legal Segregation Model, a clearing member would incur upfront operational costs of \$1 million and ongoing operational costs of \$700,000. *See id.* at 33823.

³⁸ ISDA estimates that adoption of the Physical Segregation Model would either increase the amount of collateral required to be posted by customers to margin their cleared swaps by 69.75%, which would equate to a total increase of \$581 billion, or double the amount of contributions of clearing members to guaranty funds, which would equate to a total increase of \$128 billion. *See id.*

clients to the non-defaulting clearing members, resulting in larger guaranty funds than would be the case under the U.S. Futures Model.

In view of the different options and models that may exist, is there any one option or model in particular that could usefully serve as a minimum requirement? Would it be possible to identify a specific approach to segregation and portability that could be defined as best practice?

We believe that the current U.S. Futures Model could usefully serve as a minimum requirement, but we are wary of identifying a specific model as a best practice. Each model has its pros and cons, and differently situated clients will value the respective attributes of the various models differently.

If CPSS-IOSCO chooses to designate one model as a best practice model, we would recommend the U.S. Futures Model because it has been tested and has worked well for many years, would not be prohibitively expensive (either in terms of operational costs or potential increases in margin or guaranty fund levels), and would not have the potential to erode market discipline (since clients would be incentivized to select prudently managed clearing members to clear through). We would not recommend mandating adoption of the Physical Segregation Model because of its operational complexity and costs. The Complete Legal Segregation Model could be viewed as a compromise between the U.S. Futures Model and the Physical Segregation Model.

PRINCIPLE 16: CUSTODY AND INVESTMENT RISK

An FMI should safeguard its assets and minimise the risk of loss or delay in access to those assets, including assets posted by its participants. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Use of custodians

We would like to see the scope of protection of assets in custody extended not only against claims of custodian's creditors, but also against claims of an FMI's creditors.

Investing participant assets

We support CPSS-IOSCO's introduction of specific and restrictive criteria with respect to CCPs' permissible investments of clearing member collateral. In our view, the primary objective of a CCP's investment policy should be to minimize interest rate, investment, and credit risks and safeguard principal as well, as provide sufficient liquidity. We set out below our comments with respect to specific asset classes:

Securities

Re-hypothecation or re-use of clearing member securities posted as guaranty fund (or initial margin if the relevant clearing member is the defaulter) should not be permitted except in order to raise liquidity in the event of one or more clearing member defaults if immediately liquidating the collateral would lead to severe asset value depreciation.

Cash

A CCP should invest clearing member cash in overnight reverse repos of highly liquid government or quasi-government agency bonds rated "AA-" or above and ensure adequate haircuts are taken.

Alternatively, should the repo market not be cost effective or accessible, direct purchase of fixed income securities should be allowed but limited to short-term government securities rated “AA-” or above. CCPs should seek to minimize investing clearing member cash on an unsecured basis (including by leaving it in settlement bank accounts) and establish appropriate concentration limits to minimize risk to specific counterparties. A CCP should pass on a reasonable return to its clearing members for cash collateral posted. A CCP should have clear, transparent, and easily accessible rules governing the CCP investment policy. These should be readily available to clearing members and clients.

PRINCIPLES 18 TO 20: ACCESS AND INTEROPERABILITY

The following comments are specific to CCPs and the risk implications of accessibility and interoperability. We view risk reduction as the primary objective of CCPs. The guiding principle behind our comments is the importance of reducing systemic risk while giving due consideration to competitive and economic implications.

PRINCIPLE 18: ACCESS AND PARTICIPATION REQUIREMENTS

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

Fair and open access to CCPs

We support fair and open access to CCPs that is based on CCPs’ establishing objective, risk-based, and publicly disclosed clearing membership criteria and monitoring ongoing compliance with such criteria by their clearing members. As a systemically important institution, a CCP must ensure that each clearing member has: (a) the financial means to withstand another clearing member’s default or multiple clearing member defaults occurring within a short time period; and (b) risk management resources to assist the clearing house in its risk management processes.

We would encourage CPSS-IOSCO to consider articulating with greater specificity in principle 18 examples of appropriate CCP access requirements:

Financial soundness

We support open access to CCPs with a risk-based framework that allows clearing members to clear client and house activity in proportion to their capital. By linking the amount of required capital to a clearing member’s activity, the CCP can ensure that it has sufficient financial resources and liquidity to absorb losses caused by the failure of the clearing member or one or more of its clients and, at the same time, provide access to a wider range of clearing members.

CCPs should be required, rather than simply being permitted, to scale their risk tolerance to clearing members in proportion to their respective capital levels. In our view: (1) clearing members should clear house and client business only in proportion to their available capital; and (2) CCPs should employ real-time risk management processes to ensure compliance with this principle and should hold a sufficient amount of margin and funded default guaranty fund. We believe that it would be appropriate for regulators to monitor the ability of clearing members to meet their financial obligations with respect to all CCP with which they clear and to perform this monitoring function by adopting a risk-based assessment of the clearing member’s ability to post guaranty fund contributions and margin when required by the CCPs of which it is a member.

In considering CCP membership requirements, it is important to keep in mind the nature of a CCP. A CCP is structured to provide for mutual sharing of counterparty risk among members. Each clearing member is exposed to the counterparty credit risk of all other clearing members and, by extension, all clients clearing trades via those other clearing members. A CCP itself provides a very small portion of the capital that backs its performance, and the vast majority of the financial resources of the CCP is provided by its clearing members through their contributions to the guaranty fund as well as margin they post. To the extent of its liability, each clearing member is turning over risk management of its capital to the CCP. In addition, the CCP's risk management framework is heavily reliant not only on the capital and liquidity of its clearing members but also on each clearing member's risk management and operational capabilities. A CCP that is prudently managed must have adequate margin and guaranty fund resources and must refresh its calculations daily and intraday to adjust its resources to changing market conditions.

Linking the amount that can be cleared by a member to that clearing member's available capital is a key prerequisite to enabling clearing houses to provide open access to clearing services. This will establish a direct relationship between the amount of risk introduced by a clearing member and the ability of that clearing member to contribute to the financial resources needed to support losses that may result from that member's clearing activity.

A clearing member may have committed to additional unfunded assessments at more than one clearing house.

At this time, there is an open question about whether CCPs are capable of performing the appropriate capital analysis to properly determine whether each clearing member has the financial means to withstand another clearing member's default or multiple member defaults occurring within a short time period. Ideally, a CCP would stress tests on the house and client positions of each clearing member and compare the results of those tests to the clearing member's reported capital. It must be noted that in this case the CCP would not have any information as to the clearing member's contingent liabilities at all other CCPs through which it clears or the other activities of that clearing member. A reasonable capital standard would be a suitable replacement for this type of analysis, at least until CCPs or regulators are able to conduct this type of detailed analysis.

We believe it would be appropriate for regulators to adopt a risk-based analysis to assess and monitor the ongoing likelihood that a clearing member will be able to meet its contingent obligations across all CCPs. This framework will require greater supervision by regulators and CCPs to ensure that clearing members have sufficient liquid resources to support the business they clear in each of the CCPs they face. Another key aspect of this framework is the implementation by CCPs of capped liability for clearing members so that clearing members and their respective regulators can monitor funded and unfunded contributions, both actual and expected.

Regulatory oversight would require a system-wide monitoring of a risk-based cap on the exposure of a clearing member to the CCPs it faces. Given the global nature of the markets, international cooperation between regulators would be essential. In our view, CPSS and IOSCO should play a key role in working towards that goal.

Risk management expertise and capacity

An entity that becomes a CCP's clearing member must have the ability to participate in the CCP's default management process and must be able to evaluate, on a real-time basis in volatile markets, and bid for the portfolios of other clearing members of the CCP. A clearing member failure to do so, such failure could adversely affect its fellow clearing members and the CCP by reducing resources available to the CCP and

liquidity, burdening other clearing members, and otherwise compromising the effectiveness of the default management process.

Accordingly, a requirement to access must be risk management expertise and capacity. A clearing member needs to be able to demonstrate well-developed credit risk management practices and should have detailed credit risk policies and sufficient staff to follow those policies. In addition, a clearing member should be knowledgeable about the products it clears (and have practical experience in dealing with those products) and be able to monitor and manage its own market risk and that of its clients. It should be able to update risk numbers on a real-time basis so that it can react to volatile market conditions.

CSDs and payment systems

With respect to an FMI that is a CSD or payment system, we would observe that while such FMI's participants should comply with the FMI's participation requirements, the FMI's actions should not be viewed as a substitute for regulatory and supervisory requirements.

PRINCIPLE 19: TIERED PARTICIPATION ARRANGEMENTS

An FMI should, to the extent practicable, identify, understand, and manage the risks to it arising from tiered participation arrangements.

We support the view that CCPs should collect and analyze information from clearing members on positions taken by their customers. In addition to CCPs conducting this important risk management activity, we note that it would not be possible for CCPs to monitor the activity of their clearing members and their clients across CCPs. For this reason, only regulators, acting globally in a coordinated fashion, can perform this vitally important oversight function.

In our view, it is essential to create a framework to monitor and control the levered use of capital by clearing members (and their clients that are accessing clearing through the clearing members) to satisfy their financial obligations to multiple CCPs on a global basis. Only regulators, on a globally coordinated basis, can monitor (a) the risk introduced by clearing members and their clients at each CCP and in the financial system overall; and (b) whether clearing members and their clients have the capital to support the risk they introduce to each CCP.

Best practices around such key issues as liquidity, gap risk, market depth, and other similar issues are constantly being refined and are all subject to change over very short intervals, and those charged with oversight and management of CCP risk need to have up-to-date information on both the rules of the organization and how to best to manage risk under challenging circumstances or in a crisis. We support routine on site inspections aimed at assessing the risk management practices of CCPs and their members.

For purposes of the application of principle 19, we recommend that CPSS-IOSCO distinguish between the different types of FMIs, such as CSDs and ICSDs, on the one hand, and CCPs, on the other. These distinctions are necessary by virtue of the specific characteristics and role in the financial system of these different types of FMIs. For CSDs and ICSDs that provide settlement and custody services, there are usually several levels of holders behind the direct participants. This is the case in particular for custodial activity. In those cases, in our view it would not be beneficial to the stability of the financial system to identify and track the various levels of the holding chain behind the direct participant. For these reasons, we do not recommend the introduction of a requirement to track indirect participants in CSDs and ICSDs. With respect to CCPs, depending on the segregation model, CCPs will have direct access to information relating to the positions and margin of a client accessing the CCP indirectly through a clearing member.

This information should be available to CCPs for risk management and margining purposes, while each clearing member would remain responsible for the activity of its clients.

PRINCIPLE 20: FMI LINKS

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

Links between FMIs promote efficiency in the financial system. However, they can also constitute a source of risks for linked FMIs and the financial system. We welcome CPSS-IOSCO's focus on the need for FMIs to assess and manage link-related risks.

CCP-CCP links

With respect to CCP-to-CCP links, we would note the following:

Benefits

Interoperability will facilitate clearing members' ability to balance their risks across all CCPs with which they clear. While a clearing member's global derivatives book will typically be relatively flat with respect to market risk, its risk at any one CCP will be driven by its clients' clearing preferences (since clients, not clearing members, select CCPs with which they clear). Absent a clearing member's ability to transfer positions from one CCP to another through interoperability arrangements, a clearing member's risk at any given CCP could potentially become very directional, thereby resulting in calls for considerably more margin at each CCP than it would otherwise have to post were it clearing with only one CCP. As a consequence, a clearing member would need to manage its derivatives books on a CCP-by-CCP basis, in order to control its exposure, and the amount of collateral it posts, to each CCP. The cumulative effect of such management across all dealers in the market could lead to market fragmentation and a decrease in liquidity, which would ultimately redound to the detriment of clients.

We also believe that interoperability will increase competition among CCPs, resulting in a more competitive market for clearing services and helping to prevent the establishment of CCP monopolies. We note that vertical integration without open access and without interoperability results in market participants being captives of exchange-CCP integrated structures at the expense of competition and open access.

Risks and challenges

We encourage CPSS-IOSCO to carefully analyze interoperability. While we recognize its benefits, we believe that it may not be appropriate for all markets and if it is not implemented properly, it could end up obscuring risk in the financial system and increasing risk in default scenarios. Moreover, experience with interoperability in the cash equities market may be of limited instructional value in the cleared OTC derivatives market given the differences in risk profiles and settlement periods of products in the two markets.

Currently, there are significant challenges to safely utilizing interoperability between CCPs that clear OTC derivatives. Strict risk management standards should be developed and consistently applied on an international basis by regulators, and CCPs should be required to assess their operations against those standards and provide progress reports to their regulators. Operational systems and processes, backed by a sufficient legal framework (which, among other things, addresses tax issues, particularly in cross-border transactions), must be established that enable one CCP to accept the trades of another CCP at a clearing

member's request. Careful consideration needs to be given to the legal framework governing enforceability of collateral posted by one CCP to another, default management, close-out, and insolvency.

We believe that CPSS-IOSCO is uniquely situated to consider these issues and develop standards relating to interoperability and coordinate their consistent regulatory application.

Due diligence

Clearing members must be able to properly diligence the risks to which they are exposed through their CCPs' interoperability arrangements. CCPs must provide their clearing members with full transparency over the details of their interoperability arrangements and share with them information necessary for them to analyze such arrangements (including but not limited to relevant legal opinions obtained to support such arrangements) well in advance of their launch.

Similarly, transparency will be required for each CCP to understand the risks held at other CCPs. CCPs' sharing of position data with one another will help identify situations where there is particular risk factor concentration and then allow the CCPs to ascertain their participants' ability to support that risk.

CSD-CSD links

With respect to CSDs, we would emphasize that the ability of CSDs to open links between and compete with one another needs to be balanced with the risks of fragmentation and the systemic risks posed by such interoperability.

The directive stated in key consideration 3 and explanatory note 3.20.6, which states that "any credit extensions between CSDs should be covered fully with high-quality collateral and be subject to limits,"³⁹ may be difficult to achieve in practice. By their very nature, CSDs do not have proprietary collateral (outside of their capital) that can be used to collateralize inter-CSD exposure. However, the need for credit extensions between CSDs could be reduced by the following:

- (i) the use of central bank money settlement when possible (though that will require the provision of collateral to a central bank or use of a cash clearer with sufficient collateral at a central bank);
- (ii) the promotion of centralized central bank money settlements systems such as T2S, which do not require CSD credit extensions (which also addresses the issue of settlement occurring in different systems or CSDs and the related operational and credit risk);
- (iii) the segregation of banking services into a separate legal entity from the CSD; or
- (iv) the settlement of the payment leg of the securities transaction through alternative channels.

The strong risk management controls mentioned in explanatory notes 3.20.1 and 3.20.6 need to include controls to monitor and even limit the cross-border activity of CSDs, if this would create systemic risks.

ANNEX E: GUIDANCE FOR CCPs THAT CLEAR OTC DERIVATIVES

A CCP should not be able to use its emergency powers to change the economic terms of a transaction that has been already cleared. By way of example, we do not believe that a CCP should be able to decide that the recovery on a trade is 90% exclusively in order to avoid incurring a loss at the CCP. A CCP needs the ability to take emergency action in a crisis if there is not time to consult its risk committee, board of directors or regulator(s). However, we believe that a CCP should be required to revert to its risk committee, board or regulator(s) as soon as possible after such action for ratification and, in any event, no

³⁹ *Consultative Report, supra* note 1, at 89.

later than 24 hours after the event. Moreover, a CCP should not be able to use its emergency power to override any provisions in its rulebook providing for limited liability for clearing members following a default by a clearing member.

We appreciate the opportunity to provide these comments. If you require further information, please do not hesitate to contact the undersigned.

Sincerely,

Alessandro Cocco
Managing Director