

Financial Stability Standards for Central Counterparties: Comparison to CPSS-IOSCO *Principles for Financial Market Infrastructures*

Introduction

This document provides a comparison between the new *Financial Stability Standards for Central Counterparties* (CCP Standards), and the *Principles for Financial Market Infrastructures* (the Principles) issued by the Committee for Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO).¹ It is intended to assist readers of the new CCP Standards in understanding where the Reserve Bank has added to and amended the text of the Principles and associated key considerations, by providing a broad indication of variations and changes between the two primary documents.

Disclaimer: An automated process was used in generating the comparison of the new CCP Standards against the Principles and associated key considerations. While the Reserve Bank has taken due care in compiling this document, it is possible that the comparison contains errors, omissions and inaccuracies introduced through use of the automated process. This document should therefore be used as an aid only. Readers should refer directly to the text of the new CCP Standards and the Principles in order to fully understand the requirements of and differences between the two.

Principle Standard 1: Legal basis

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

Key considerations

- ~~1.1~~ A central counterparty should be a legal entity which is separate from other entities that may expose it to risks unrelated to those arising from its function as a central counterparty.
- ~~1.2~~ The legal basis should provide a high degree of certainty for each material aspect of ~~an FMIA central counterparty's~~ activities in all relevant jurisdictions.
- ~~1.3~~ ~~An FMIA central counterparty~~ should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.
- ~~1.4~~ ~~An FMIA central counterparty~~ should be able to articulate the legal basis for its activities to the Reserve Bank and other relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.
- ~~1.5~~ ~~An FMIA central counterparty~~ should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the ~~FMIA central counterparty~~ under such rules and procedures will not be voided, reversed, or subject to stays, including in the event that the central counterparty enters into external administration or that one or more of its participants defaults or is suspended.
- ~~1.6~~ ~~An FMIA central counterparty~~ conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflicts of laws across jurisdictions. A central counterparty should provide

¹ The CCP Standards are available at: <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/201212-new-fss-ris/index.html>>. CPSS-IOSCO (2012), *Principles for Financial Market Infrastructures*, CPSS Publications No 101, Bank for International Settlements, April, is available at: <<http://www.bis.org/publ/cpss101.htm>>.

the Reserve Bank with a legal opinion that demonstrates the enforceability of its rules and addresses relevant conflicts of law across the jurisdictions in which it operates. This should be reviewed on a periodic basis or when material changes occur that may have an impact on the opinion, and updated where appropriate.

Principle Standard 2: Governance

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

Key considerations

- 2.1** An FMI's central counterparty should have objectives that place a high priority on the safety and efficiency of the FMI's central counterparty and explicitly support the stability of the financial stability system and other relevant public interest considerations.
- 2.2** An FMI's central counterparty should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, the Reserve Bank and other relevant authorities, participants, and, at a more general level, the public.
- 2.3** The roles and responsibilities of an FMI's central counterparty's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should regularly review both its overall performance and the performance of its individual board members regularly.
- 2.4** The board should contain/comprise suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).
- 2.5** The roles and responsibilities of management should be clearly specified. An FMI's central counterparty's management should have the appropriate experience, a mix of skills, and the integrity necessary to effectively discharge their responsibilities for the operation and risk management of the FMI's central counterparty. Compensation arrangements should be structured in such a way as to promote the soundness and effectiveness of risk management.
- 2.6** The board should establish a clear, documented risk management framework that includes the FMI's central counterparty's risk tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision-making in crises and emergencies. Governance arrangements should ensure that the risk management and internal control functions have sufficient authority, independence, resources, and access to the board, including through the maintenance of a separate and independent internal audit function.
- 2.7** A central counterparty's operations, risk management processes, internal control mechanisms and accounts should be subject to internal audit and, where appropriate, periodic external independent expert review. Internal audits should be performed, at a minimum, on an annual basis. The outcome of internal audits and external reviews should be notified to the Reserve Bank and other relevant authorities.
- 2.8** The board Governance arrangements should ensure that the FMI's central counterparty's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants, and other relevant stakeholders. Governance arrangements should provide for consultation and stakeholder engagement through appropriate forums on operational arrangements, risk controls and default management rules and procedures. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.
- 2.9** A central counterparty that is part of a group of companies should ensure that measures are in place such that decisions taken in accordance with its obligations as a central counterparty cannot be compromised by the group structure or by board members also being members of the board of other entities in the same group. In particular, such a central counterparty should consider specific procedures for preventing and managing conflicts of interest, including with respect to intragroup outsourcing arrangements.

Principle Standard 3: Framework for the comprehensive management of risks

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

~~Key considerations~~

- ~~3.1 An FMIA central counterparty~~ should have risk -management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the ~~FMIA central counterparty~~. ~~This risk -management frameworks~~ should be subject to periodic review.
- ~~3.2 A central counterparty should ensure that financial and other obligations imposed on participants under its risk management framework are proportional to the scale and nature of individual participants' activities.~~
- ~~3.3 An FMIA central counterparty~~ should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the ~~FMIA central counterparty~~.
- ~~3.4 An FMIA central counterparty~~ should regularly review the material risks it bears from and poses to other entities (such as other FMIs, ~~money settlement banks~~ agents, liquidity providers, and service providers) as a result of interdependencies, and develop appropriate risk -management tools to address these risks.
- ~~3.5 An FMIA central counterparty~~ should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. ~~An FMIA central counterparty~~ should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, ~~an FMIA central counterparty~~ should also provide relevant authorities with the information needed for purposes of resolution planning.

Principle Standard 4: Credit risk

[Key Consideration 3 not relevant to central counterparties]

~~An FMIA central counterparty~~ should effectively measure, monitor, and manage its credit exposures to participants and those arising from its ~~payment, clearing, and settlement~~ processes. ~~An FMIA central counterparty~~ should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. ~~In addition, a CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.~~

~~Key considerations~~

- ~~4.1 An FMIA central counterparty~~ should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its ~~payment, clearing, and settlement~~ processes. Credit exposures may arise from current exposures, potential future exposures, or both.
- ~~4.2 An FMIA central counterparty~~ should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk -management tools to control these risks. ~~To assist in this process, a central counterparty should ensure it has the capacity to calculate exposures to participants on a timely basis as required, and to receive and review timely and accurate information on participants' credit standing.~~
- ~~4.3 A central counterparty should have the authority to impose activity restrictions or additional credit risk controls on a participant in situations where the central counterparty determines that the participant's credit standing may be in doubt.~~
- ~~4.4 A CCPA central counterparty~~ should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see ~~Principle CCP Standard 5~~ on collateral and ~~Principle CCP Standard 6~~ on margin). In addition, a ~~CCP central counterparty~~ that is involved in activities with a more complex risk profile or that is systemically important in multiple

jurisdictions should 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 two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP central counterparty in extreme but plausible market conditions. All other CCP central counterparties should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP central counterparty in extreme but plausible market conditions. In all cases, a CCP central counterparty should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.

- 4.5** A CCP central counterparty should, through rigorous stress testing, determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions ~~through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources.~~ Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP central counterparty should perform a comprehensive and thorough analysis of stress-testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the central counterparty's required level of default protection in light of current and evolving market conditions. A CCP central counterparty should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a central counterparty's participants increases significantly. A full validation of a central counterparty's risk management model should be performed at least annually.
- 4.6** In conducting stress testing, a CCP central counterparty should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.
- 4.7** A CCP central counterparty should have clearly documented and effective rules and procedures to report the results of its stress tests stress-test information to appropriate decision-makers ~~at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources.~~ and ensure that additional financial resources are obtained on a timely basis in the event that projected stress-test losses exceed available financial resources. Where projected stress-test losses of a single or only a few participants exceed available financial resources, it may be appropriate to increase non-pooled financial resources; otherwise, where projected stress-test losses are frequent and consistently widely dispersed across participants, clear processes should be in place to augment pooled financial resources.
- 4.8** An FMI central counterparty should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI central counterparty. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds ~~an FMI central counterparty~~ an FMI central counterparty may borrow from liquidity providers. These rules and procedures should also indicate the FMI's central counterparty's process to replenish any financial resources that the FMI central counterparty may employ during a stress event, so that the FMI central counterparty can continue to operate in a safe and sound manner.

Principle Standard 5: Collateral

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

Key considerations

- 5.1 ~~An FMI~~ central counterparty should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.
- 5.2 In determining its collateral policies, a central counterparty should take into consideration the broad effect of these policies on the market. As part of this, a central counterparty should consider allowing the use of collateral commonly accepted in the relevant jurisdictions in which it operates.
- 5.3 ~~An FMI~~ central counterparty should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.
- 5.4 In order to reduce the need for procyclical adjustments, ~~an FMI~~ central counterparty should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.
- 5.5 ~~An FMI~~ central counterparty should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.
- 5.6 ~~An FMI~~ central counterparty that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.
- 5.7 ~~An FMI~~ central counterparty should use a collateral management system that is well -designed and operationally flexible.

PrincipleStandard 6: Margin

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

Key considerations

- 6.1 A ~~CCP~~ central counterparty should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.
- 6.2 A ~~CCP~~ central counterparty should have a reliable source of timely price data for its margin system. A ~~CCP~~ central counterparty should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.
- 6.3 A ~~CCP~~ central counterparty should adopt initial margin models and parameters that are risk -based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 per cent with respect to the estimated distribution of future exposure. For a ~~CCP~~ central counterparty that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a ~~CCP~~ central counterparty that calculates margin at more granular levels, such as at the sub-portfolio level or by product, ~~this~~ requirement ~~must~~should be met for ~~the~~ corresponding distributions of future exposure. The model should: ~~(a)~~ use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the ~~CCP~~ central counterparty (including in stressed market conditions); ~~(b)~~ have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products; and ~~(c)~~ to the extent practicable and prudent, limit the need for destabilising, procyclical changes.
- 6.4 A ~~CCP~~ central counterparty should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A ~~CCP~~ central counterparty should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.
- 6.5 In calculating margin requirements, a ~~CCP~~ central counterparty may allow offsets or reductions in required margin across products that it clears or between products that it and another ~~CCP~~ central counterparty clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. ~~Where two or more CCPs are authorised to offer~~Where a central counterparty enters into a cross-margining arrangement with one or more other central counterparties, they must have appropriate safeguards should

be put in place and harmonised steps should be taken to harmonise overall risk management systems. Prior to entering into such an arrangement, a central counterparty should consult with the Reserve Bank.

- 6.6** A CCP central counterparty should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting and at least monthly, and more frequent where appropriate, sensitivity analysis. A CCP central counterparty should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a CCP central counterparty should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.
- 6.7** A CCP central counterparty should regularly review and validate its margin system.
- 6.8** In designing its margin system, a central counterparty should consider the operating hours of payment and settlement systems in the markets in which it operates.

Principle Standard 7: Liquidity risk

[Key Consideration 3 not relevant to central counterparties]

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

Key considerations

- 7.1** An FMIA central counterparty should have a robust framework to manage its liquidity risks from its participants, commercial bank money settlement banks agents, nostro agents, custodians banks, liquidity providers, and other entities.
- 7.2** An FMIA central counterparty should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.
- 7.3** A CCP central counterparty should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP central counterparty in extreme but plausible market conditions. In addition, a CCP central counterparty that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP central counterparty in extreme but plausible market conditions.
- 7.4** For the purpose of meeting its minimum liquid resource requirement, an FMI's central counterparty's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI's central counterparty has access to routine credit at the central bank of issue, the FM central counterparty may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.
- 7.5** An FMIA central counterparty may supplement its qualifying liquid resources with other forms of liquid resources. If the FM central counterparty does so, then these liquid resources should be in the form of assets

that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an *ad hoc* basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI central counterparty does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI central counterparty should not assume the availability of emergency central bank credit as a part of its liquidity plan.

- 7.6 An FMI central counterparty should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI central counterparty or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI central counterparty should regularly test its procedures for accessing its liquid resources at a liquidity provider.
- 7.7 An FMI central counterparty with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk. A central counterparty that the Reserve Bank determines to be systemically important in Australia and has obligations in Australian dollars should operate its own Exchange Settlement Account, in its own name or that of a related body corporate acceptable to the Reserve Bank, to enhance its management of Australian dollar liquidity risk.
- 7.8 An FMI central counterparty should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI central counterparty should have clear procedures to report the results of its stress tests to appropriate decision-makers at the FMI central counterparty and to use these results to evaluate the adequacy of, and adjust, its liquidity risk management framework. In conducting stress testing, an FMI central counterparty should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI central counterparty, include all entities that might pose material liquidity risks to the FMI central counterparty (such as commercial bank money settlement banks, agents, custodians, banks, liquidity providers, and linked FMIs), and, where appropriate, cover a multiday period. In all cases, an FMI central counterparty should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.
- 7.9 An FMI central counterparty should establish explicit rules and procedures that enable the FMI central counterparty to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI central counterparty's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

Principle Standard 8: Settlement finality

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

Key considerations

- 8.1 An FMI's central counterparty's rules and procedures should clearly define the point at which settlement is final.

- 8.2** ~~An FMI central counterparty~~ should ~~complete~~ensure final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. ~~An LVPS or SSS should consider adopting RTGS or multiple batch processing during the settlement day.~~
- 8.3** ~~An FMI central counterparty~~ should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.

Principle Standard 9: Money settlements

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

~~Key considerations~~

- 9.1** ~~An FMI central counterparty~~ should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks. A central counterparty that the Reserve Bank determines to be systemically important in Australia and has Australian dollar obligations should settle its Australian dollar obligations across an Exchange Settlement Account held at the Reserve Bank, in its own name or that of a related body corporate acceptable to the Reserve Bank.
- 9.2** If central bank money is not used, ~~an FMI central counterparty~~ should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.
- 9.3** If ~~an FMI central counterparty~~ settles in commercial bank money, or its participants effect settlements using commercial settlement banks, it should monitor, manage, and limit ~~its~~ credit and liquidity risks arising from the commercial bank money settlement agents and commercial settlement banks. In particular, ~~an FMI central counterparty~~ should establish and monitor adherence to strict criteria for ~~its settlement commercial banks that appropriate to their role in the settlement process,~~ takeing account of ~~among other things,~~ matters such as their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. ~~An FMI central counterparty~~ should also monitor and manage the concentration of ~~its and its participants' credit and liquidity exposures to its commercial bank money settlement agents and commercial settlement banks.~~
- 9.4** If ~~an FMI central counterparty~~ conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.
- 9.5** ~~An FMI's A central counterparty's~~ legal agreements with any commercial bank money settlement agents settlement banks, should state clearly when transfers on the books of individual settlement the relevant commercial banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the ~~FMI central counterparty~~ and its participants to manage credit and liquidity risks.

Principle Standard 10: Physical deliveries

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

~~Key considerations~~

- 10.1** ~~An FMI's A central counterparty's~~ rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.
- 10.2** A central counterparty should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.

[Principle 11 on central securities depositories not relevant to central counterparties]

Principle Standard 11: Exchange-of-value ~~settlement systems~~ settlements

~~If an FMI settles~~ If a central counterparty is involved in the settlement of transactions that ~~involve the settlement of~~ comprise two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by ~~conditioning~~ ensuring that the final settlement of one obligation is conditional upon the final settlement of the other.

Key consideration

11.1 An FMI that is an exchange of value settlement system A central counterparty should eliminate principal risk associated with the settlement of any obligations involving two linked obligations by ensuring that the payment system or securities settlement facility employed operates in such a way that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs, regardless of whether the ~~FMI~~ securities settlement facility settles on a gross or net basis and when finality occurs.

11.2 A central counterparty should eliminate principal risk associated with the settlement of linked obligations by ensuring that it employs an appropriate delivery versus payment (DvP), delivery versus delivery (DvD) or payment versus payment (PvP) settlement mechanism.

Principle 13 Standard 12: Participant -default rules and procedures

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

Key considerations

12.1 An FMI central counterparty should have default rules and procedures that enable the ~~FMI~~ central counterparty to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default. A central counterparty should ensure that financial and other obligations created for non-defaulting participants in the event of a participant default are proportional to the scale and nature of individual participants' activities.

12.2 An FMI central counterparty should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules. This requires that the central counterparty should:

(a) require its participants to inform it immediately if they:

- (i) become subject to, or aware of the likelihood of external administration, or have reasonable grounds for suspecting that they will become subject to external administration; or
- (ii) have breached, or are likely to breach, a risk control requirement of the central counterparty; and
- (b) have the ability to close out, hedge or transfer, a participant's open contracts in order to appropriately control risk of a participant that:
 - (i) becomes subject to external administration; or
 - (ii) breaches a risk control requirement of the central counterparty.

12.3 An FMIA central counterparty should publicly disclose key aspects of its default rules and procedures.

12.4 An FMIA central counterparty should involve its participants and other stakeholders in the testing and review of the FMIA's central counterparty's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually ~~or~~ and following material changes to the rules and procedures to ensure that they are practical and effective.

12.5 A central counterparty should demonstrate that its default management procedures take appropriate account of interests in relevant jurisdictions and, in particular, any implications for pricing, liquidity and stability in relevant financial markets.

Principle 14 Standard 13: Segregation and portability

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

Key considerations

13.1 A CCP central counterparty should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the ~~CCP central counterparty~~ additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the ~~CCP central counterparty~~ should take steps to ensure that such protection is effective.

13.2 A CCP central counterparty should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. ~~A CCP central counterparty~~ should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts, or equivalent.

13.3 To the extent reasonably practicable under prevailing law, A CCP a central counterparty should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.

13.4 A CCP central counterparty should disclose its rules, policies, and procedures relating to the segregation ~~and portability~~ of a participant's customers' positions and related collateral. In particular, the ~~CCP central counterparty~~ should disclose whether customer collateral is ~~protected~~ segregated on an individual or omnibus basis. In addition, a ~~CCP central counterparty~~ should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.

Principle 15 Standard 14: General business risk

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

Key considerations

- 14.1** ~~An FMIA central counterparty~~ should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.
- 14.2** ~~An FMIA central counterparty~~ should hold, or demonstrate that it has legally certain access to, liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity ~~an FMIA central counterparty~~ should hold, or have access to, should be determined by its general business-risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.
- 14.3** ~~An FMIA central counterparty~~ should maintain a viable recovery or orderly wind-down plan and should hold, or have legally certain access to, sufficient liquid net assets funded by equity to implement this plan. At a minimum, ~~an FMIA central counterparty~~ should hold, or have legally certain access to, liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under ~~the financial resources principles~~ CCP Standard 4 on credit risk and CCP Standard 7 on liquidity risk. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.
- 14.4** Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the ~~FMI~~ central counterparty to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.
- 14.5** ~~An FMIA central counterparty~~ should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.

Principle 16 Standard 15: Custody and investment risks

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

Key considerations

- 15.1** ~~An FMIA central counterparty~~ should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.
- 15.2** ~~An FMIA central counterparty~~ should have prompt access to its assets and the assets provided by participants, when required.
- 15.3** ~~An FMIA central counterparty~~ should evaluate and understand its exposures to its custodians ~~banks~~, taking into account the full scope of its relationships with each.
- 15.4** ~~An FMI's~~ A central counterparty's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.

Principle 17 Standard 16: Operational risk

[Key Considerations 4 and 5 both incorporated into CCP Standard 16.3]

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

Key considerations

Identifying and managing operational risk

- 16.1 A central counterparty should establish a robust operational risk management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.
- 16.2 An FMI's central counterparty's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's central counterparty's operational risk management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.
- 16.3 An FMI's central counterparty should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives. These policies include, but are not limited to, having: exacting targets for system availability; scalable capacity adequate to handle increasing stress volumes; and comprehensive physical and information security policies that address all potential vulnerabilities and threats.
- 16.4 A central counterparty should ensure that it can reliably access and utilise well-trained and competent personnel, as well as technical and other resources. These arrangements should be designed to ensure that all key systems are operated securely and reliably in all circumstances, including where a related body becomes subject to external administration.
- 16.5 An FMI's central counterparty should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. A central counterparty should inform the Reserve Bank of any critical dependencies on utilities or service providers. In addition, an FMI's central counterparty should identify, monitor, and manage the risks its operations might pose to its participants and other FMIs. Where a central counterparty operates in multiple jurisdictions, managing these risks may require it to provide adequate operational support to participants during the market hours of each relevant jurisdiction.
- 16.6 A participant of a central counterparty should have complementary operational and business continuity arrangements that are appropriate to the nature and size of the business undertaken by that participant. The central counterparty's rules and procedures should clearly specify operational requirements for participants.

Business continuity arrangements

- 16.7 An FMI's central counterparty should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The Business continuity arrangements should provide appropriate redundancy of critical systems and appropriate mitigants for data loss. The business continuity plan should be designed to enable the FMI's central counterparty to complete/facilitate settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI's central counterparty should regularly test these arrangements.
- 16.8 A central counterparty should consider making contingency testing compulsory for the largest participants to ensure they are operationally reliable and have in place tested contingency arrangements to deal with a range of operational stress scenarios that may include impaired access to the central counterparty.

Outsourcing and other dependencies

- 16.9 A central counterparty that relies upon outsources some of its operations to, or has other dependencies with a related body, another FMI or a third-party service provider (for example, data processing and information systems management) should ensure that those operations meet the resilience, security and operational performance requirements of these CCP Standards and equivalent requirements of any other jurisdictions in which it operates.
- 16.10 All of a central counterparty's outsourcing or critical service provision arrangements should provide rights of access to the Reserve Bank to obtain sufficient information regarding the service provider's operation of any

critical functions provided. A central counterparty should consult with the Reserve Bank prior to entering into an outsourcing or service provision arrangement for critical functions.

16.11 A central counterparty should organise its operations, including any outsourcing or critical service provision arrangements, in such a way as to ensure continuity of service in a crisis and to facilitate effective crisis management actions by the Reserve Bank or other relevant authorities. These arrangements should be commensurate with the nature and scale of the central counterparty's operations.

Principle 18Standard 17: Access and participation requirements

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

Key considerations

17.1 An FMI central counterparty should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.

17.2 An FMI central counterparty's participation requirements should be justified in terms of the safety and efficiency of the FMI central counterparty and the markets it serves, be tailored to and commensurate with the FMI central counterparty's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI central counterparty should endeavour to set requirements that have the least restrictive impact on access that circumstances permit.

17.3 An FMI central counterparty should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.

Principle 19Standard 18: Tiered participation arrangements

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

Key considerations

18.1 An FMI central counterparty should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI central counterparty arising from such tiered participation arrangements.

18.2 An FMI central counterparty should identify material dependencies between direct and indirect participants that might affect the FMI central counterparty.

18.3 An FMI central counterparty should identify indirect participants responsible for a significant proportion of transactions processed by the FMI central counterparty and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI central counterparty in order to manage the risks arising from these transactions.

18.4 An FMI central counterparty should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.

Principle 20Standard 19: FMI links

[Key Considerations 3, 4, 5, 6 and 9 not relevant to central counterparties]

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

Key considerations

19.1 Before entering into a link arrangement, and on an ongoing basis once the link is established, an FMI central counterparty should identify, monitor, and manage all potential sources of risk arising from the link

arrangement. Link arrangements should be designed such that ~~each FMI~~the central counterparty is able to ~~observe the other principles in this report~~comply with these CCP Standards.

- 19.2** A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the central counterparty and other FMIs involved in the link.
- 19.3** Where relevant to its operations in Australia, a central counterparty should consult with the Reserve Bank prior to entering into a link arrangement with another FMI.
- 19.4** Before entering into a link with another CCP~~central counterparty~~, a CCP~~central counterparty~~ should identify and manage the potential spill-over effects from the default of the linked CCP~~central counterparty~~. If a link has three or more CCPs,~~each CCP~~central counterparties, a central counterparty should identify, assess, and manage the risks of the collective link arrangement.
- 19.5** ~~Each CCP in a CCPA~~ central counterparty in a central counterparty link arrangement should be able to cover, at least on a daily basis, its current and potential future exposures to the linked CCP~~central counterparty~~ and its participants, if any, fully with a high degree of confidence without reducing the CCP's~~central counterparty's~~ ability to fulfil its obligations to its own participants at any time.

[Principle 21 on efficiency and effectiveness not directly relevant to financial stability]

[Principle 22 on communication procedures and standards not directly relevant to financial stability]

Principle 23 Standard 20: Disclosure of rules, key policies and procedures, and market data

[Key Consideration 4 not directly relevant to financial stability]

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

Key considerations

- 20.1** ~~An FMIA central counterparty~~ should adopt clear and comprehensive rules, policies and procedures that are fully disclosed to participants. Relevant rules and key policies and procedures should also be publicly disclosed (including specific requirements relating to CCP Standards 1.4, 2.2, 12.3, 13.4, 15.4, 17.2 and 17.3).
- 20.2** A central counterparty's rules, policies and procedures should clearly identify the nature and scope of the risk exposure assumed by the central counterparty, such as by novation, open offer or other similar legal devices. A central counterparty's rules, policies and procedures should clearly identify the point in the clearing process at which the central counterparty assumes the risk exposure.
- 20.3** ~~An FMIA central counterparty~~ should disclose clear descriptions of the system's design and operations, as well as the FMI's~~central counterparty's~~ and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI~~central counterparty~~ (see CCP Standards 2.8 and 9.5).
- 20.4** ~~An FMIA central counterparty~~ should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's~~central counterparty's~~ rules, policies and procedures and the risks they face from participating in the FMI~~central counterparty~~.
- 20.5** ~~An FMIA central counterparty~~ should complete regularly and disclose publicly responses to the CPSS-IOSCO Disclosure Framework for Financial Market Infrastructures. ~~An FMIA central counterparty~~ also should, at a minimum, disclose basic data on transaction volumes and values, risk and activity data, as directed by the Reserve Bank from time to time.

[Principle 24 on disclosure of market data by trade repositories not relevant to central counterparties]

Standard 21: Regulatory reporting

A central counterparty should inform the Reserve Bank in a timely manner of any events or changes to its operations or circumstances that may materially impact its management of risks or ability to continue operations. A central counterparty should also regularly provide information to the Reserve Bank regarding its financial position and risk controls on a timely basis.

21.1 A central counterparty should inform the Reserve Bank as soon as reasonably practicable if:

- (a) it breaches, or has reason to believe that it will breach:**
 - (i) a CCP Standard; or**
 - (ii) its broader legislative obligation to do, to the extent that it is reasonably practicable to do so, all things necessary to reduce systemic risk;**
- (b) it becomes subject to external administration, or has reasonable grounds for suspecting that it will become subject to external administration;**
- (c) a related body to the central counterparty becomes subject to external administration, or if the central counterparty has reasonable grounds for suspecting that a related body will become subject to external administration;**
- (d) a participant becomes subject to external administration, or if the central counterparty has reasonable grounds for suspecting that a participant will become subject to external administration;**
- (e) a participant fails to meet its obligations under the central counterparty's risk control requirements or has its participation suspended or cancelled because of a failure to meet the central counterparty's risk control requirements;**
- (f) it fails to enforce any of its own risk control requirements;**
- (g) it plans to make significant changes to its risk control requirements or its rules, policies and procedures;**
- (h) it or a service it relies on from a third party or outsourced provider experiences a significant operational disruption, including providing the conclusions of its post-incident review;**
- (i) any internal audits or independent external expert reviews are undertaken of its operations, risk management processes or internal control mechanisms, including providing the conclusions of such audits or reviews;**
- (j) its operations or risk controls are affected, or are likely to be affected, by distress in financial markets;**
- (k) it has critical dependencies on utilities or service providers, including providing a description of the dependency and an update if the nature of this relationship changes;**
- (l) it proposes to grant a security interest over its assets (other than a lien, right of retention or statutory charge that arises in the ordinary course of business);**
- (m) it proposes to incur or permit to subsist any loans from participants or members unless such loans are subordinated to the claims of all other creditors of the central counterparty; or**
- (n) any other matter arises which has or is likely to have a significant impact on its risk control arrangements (see also CCP Standards 1.6, 16.10 and 19.3).**

21.2 A central counterparty should also provide to the Reserve Bank, on a timely basis:

- (a) audited annual accounts;**
- (b) management accounts on a regular basis, and at least quarterly;**
- (c) risk management reports, including detailed information on margining and stress testing, on a regular basis, and at least quarterly;**

(d) periodic activity, risk and operational data, as agreed with the Reserve Bank; and

(e) any other information as specified by the Reserve Bank from time to time.