

Attachment 4

Financial Stability Standards for Securities Settlement Facilities

Introduction

The *Financial Stability Standards for Securities Settlement Facilities* (SSF Standards) are determined under section 827D(1) of the *Corporations Act 2001* (the Act). The SSF Standards apply to all holders of an Australian Clearing and Settlement (CS) Facility Licence, under Part 7.3 of the Act, that operate a securities settlement facility, unless:

- (a) Subject to paragraph (b), the value of financial obligations settled through the facility in a financial year does not exceed a threshold value of \$200 million.
- (b) When this threshold is exceeded for the first time, the operator of the facility must notify the Reserve Bank of Australia (Reserve Bank) immediately. The operator of the facility must then meet the SSF Standards during the next and each subsequent financial year. Transitional arrangements will be discussed and agreed with the Reserve Bank or, failing agreement, determined by the Reserve Bank.

Separate financial stability standards apply to CS facility licensees that operate a central counterparty. For the purposes of the SSF Standards, a securities settlement facility is a CS facility operated by an Australian CS facility licensee that enables its participants to transfer title to or other interests in securities, typically in return for payment. A securities settlement facility may also operate a central securities depository. Unless the contrary intention appears, obligations on a securities settlement facility arising from the SSF Standards should be interpreted as being obligations on the CS facility licensee, as operator of the securities settlement facility.

Objectives of the SSF Standards

The objectives of the SSF Standards are to ensure that CS facility licensees identify and properly control risks associated with the operation of the securities settlement facility and conduct their affairs in accordance with the SSF Standards in order to promote overall stability of the Australian financial system. Primary responsibility for the design and operation of a securities settlement facility in accordance with the SSF Standards lies with a CS facility licensee's board and senior management.

How a Licensee Meets the SSF Standards

Each SSF Standard comprises a list of requirements that, through the operation of section 821A of the Act, are binding on, and must be met by, a CS facility licensee that operates a securities settlement facility. To comply with an SSF Standard a CS facility licensee must comply with the headline standard (in bold type) and each of the 'sub'-standards listed under the headline standard. The SSF Standards are to be interpreted in accordance with their respective objectives and by looking beyond form to substance. In interpreting the SSF Standards, the word 'should' is to be treated as indicating a requirement upon the securities settlement facility to take the relevant action, unless otherwise agreed by the Reserve Bank. The Reserve Bank may, from time to time, issue guidance containing further information on specific aspects of the SSF Standards.

Where the requirements in the SSF Standards and those of the Act and *Corporations Regulations 2001* are inconsistent, the requirements of the Act and Corporations Regulations will prevail to the extent of such inconsistency.

Note: The SSF Standards are based largely on the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) Principles for Financial Market Infrastructures (FMI) (the Principles) and associated key considerations.¹ The Reserve Bank has, in parts, added to and amended the text of the Principles and associated key considerations.²

SSF Standards

Standard 1: Legal basis

A securities settlement facility should have a well-founded, clear, transparent and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

- 1.1 A securities settlement facility 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 securities settlement facility.
- 1.2 The legal basis should provide a high degree of certainty for each material aspect of a securities settlement facility's activities in all relevant jurisdictions.
- 1.3 A securities settlement facility should have rules, procedures and contracts that are clear, understandable and consistent with relevant laws and regulations.
- 1.4 A securities settlement facility 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 A securities settlement facility 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 securities settlement facility under such rules and procedures will not be voided, reversed or subject to stays, including in the event that the securities settlement facility enters into external administration or that one or more of its participants or a settlement bank defaults or is suspended.
- 1.6 A securities settlement facility conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflicts of law across jurisdictions. A securities settlement facility should provide 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.

Standard 2: Governance

A securities settlement facility should have governance arrangements that are clear and transparent, promote the safety of the securities settlement facility, and support the stability of the broader

¹ CPSS-IOSCO (2012), *Principles for Financial Market Infrastructures*, CPSS Publications No 101, Bank for International Settlements, April, available at <<http://www.bis.org/publ/cpss101.htm>>.

² A marked-up version of the SSF Standards, indicating where additions and alterations have been made to the text of the Principles, will be made available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/201212-new-fss-ris/index.html>> by end 2012.

financial system, other relevant public interest considerations and the objectives of relevant stakeholders.

- 2.1 A securities settlement facility should have objectives that place a high priority on the safety of the securities settlement facility and explicitly support the stability of the financial system and other relevant public interest considerations.
- 2.2 A securities settlement facility 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 a securities settlement facility'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.
- 2.4 The board should 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. A securities settlement facility's management should have the appropriate experience, mix of skills and integrity necessary to effectively discharge its responsibilities for the operation and risk management of the securities settlement facility. 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 securities settlement facility'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 securities settlement facility's operations, risk management processes, internal control mechanisms and accounts should be subject to internal audit and, where appropriate, periodic independent expert reviews. 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 Governance arrangements should ensure that the securities settlement facility'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 securities settlement facility 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 securities settlement facility 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 securities settlement facility should

consider specific procedures for preventing and managing conflicts of interest, including with respect to intragroup outsourcing arrangements.

Standard 3: Framework for the comprehensive management of risks

A securities settlement facility should have a sound risk management framework for comprehensively managing legal, credit, liquidity, operational and other risks.

- 3.1 A securities settlement facility 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 securities settlement facility. This risk management framework should be subject to periodic review.
- 3.2 A securities settlement facility 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 A securities settlement facility should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the securities settlement facility.
- 3.4 A securities settlement facility should regularly review the material risks it bears from and poses to other entities (such as other FMI, money settlement agents, liquidity providers and service providers) as a result of interdependencies, and develop appropriate risk management tools to address these risks.
- 3.5 A securities settlement facility 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. A securities settlement facility should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, a securities settlement facility should also provide relevant authorities with the information needed for purposes of resolution planning.

Standard 4: Credit risk

A securities settlement facility should effectively measure, monitor and manage its credit exposures to participants and those arising from its settlement processes. A securities settlement facility should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence.

- 4.1 A securities settlement facility should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its settlement processes. Credit exposures may arise from current exposures, potential future exposures, or both.
- 4.2 A securities settlement facility 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 securities settlement facility 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 securities settlement facility should have the authority to impose activity restrictions or additional credit risk controls on a participant in situations where the securities settlement facility determines that the participant's credit standing may be in doubt.
- 4.4 A securities settlement facility should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see SSF Standard 5 on collateral). In the case of a deferred net settlement (DNS) securities settlement facility in which there is no settlement guarantee, but where its participants face credit exposures arising from its settlement processes, the facility should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.
- 4.5 A securities settlement facility 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 securities settlement facility. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds a securities settlement facility may borrow from liquidity providers. These rules and procedures should also indicate the securities settlement facility's process to replenish any financial resources that the securities settlement facility may employ during a stress event, so that the securities settlement facility can continue to operate in a safe and sound manner.

Standard 5: Collateral

A securities settlement facility that requires collateral to manage its or its participants' credit exposures should accept collateral with low credit, liquidity and market risks. A securities settlement facility should also set and enforce appropriately conservative haircuts and concentration limits.

- 5.1 A securities settlement facility 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 securities settlement facility should take into consideration the broad effect of these policies on the market. As part of this, a securities settlement facility should consider allowing the use of collateral commonly accepted in the relevant jurisdictions in which it operates.
- 5.3 A securities settlement facility 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, a securities settlement facility should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.
- 5.5 A securities settlement facility 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 A securities settlement facility 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 A securities settlement facility should use a collateral management system that is well designed and operationally flexible.

Standard 6: Liquidity risk

A securities settlement facility should effectively measure, monitor and manage its liquidity risk. A securities settlement facility 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 securities settlement facility in extreme but plausible market conditions.

- 6.1 A securities settlement facility should have a robust framework to manage its liquidity risks from its participants, commercial bank money settlement agents, nostro agents, custodians, liquidity providers and other entities.
- 6.2 A securities settlement facility 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.
- 6.3 A securities settlement facility should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement and, where appropriate, intraday or 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 payment obligation in extreme but plausible market conditions.
- 6.4 For the purpose of meeting its minimum liquid resource requirement, a securities settlement facility'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 a securities settlement facility has access to routine credit at the central bank of issue, the securities settlement facility 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.
- 6.5 A securities settlement facility may supplement its qualifying liquid resources with other forms of liquid resources. If the securities settlement facility does so, 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 a securities settlement facility 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. A securities settlement facility should not assume the availability of emergency central bank credit as part of its liquidity plan.
- 6.6 A securities settlement facility 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 securities settlement facility 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. A securities settlement facility should regularly test its procedures for accessing its liquid resources at a liquidity provider.

- 6.7 A securities settlement facility with access to central bank accounts, payment services or securities services should use these services, where practical, to enhance its management of liquidity risk.
- 6.8 A securities settlement facility should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. A securities settlement facility should have clear procedures to report the results of its stress tests to appropriate decision-makers at the securities settlement facility and to use these results to evaluate the adequacy of, and adjust, its liquidity risk management framework. In conducting stress testing, a securities settlement facility 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 securities settlement facility, include all entities that might pose material liquidity risks to the securities settlement facility (such as commercial bank money settlement agents, nostro agents, custodians, liquidity providers and linked FMIs) and, where appropriate, cover a multiday period. In all cases, a securities settlement facility should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.
- 6.9 A securities settlement facility should establish explicit rules and procedures that enable the securities settlement facility 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 securities settlement facility'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.

Standard 7: Settlement finality

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

- 7.1 A securities settlement facility's rules and procedures should clearly define the point at which settlement is final.
- 7.2 The securities settlement facility should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. A securities settlement facility should consider adopting real-time gross settlement (RTGS) or multiple batch processing during the settlement day.

- 7.3 A securities settlement facility should clearly define the point after which unsettled payments, transfer instructions or other obligations may not be revoked by a participant.

Standard 8: Money settlements

A securities settlement facility should conduct its money settlements in central bank money where practical and available. If central bank money is not used, a securities settlement facility should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

- 8.1 A securities settlement facility should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.
- 8.2 If central bank money is not used, a securities settlement facility should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.
- 8.3 If a securities settlement facility settles in commercial bank money or its participants effect settlements using commercial settlement banks, it should monitor, manage and limit credit and liquidity risks arising from the commercial bank money settlement agents and commercial settlement banks. In particular, a securities settlement facility should establish and monitor adherence to strict criteria for commercial banks appropriate to their role in the settlement process, taking account of matters such as their regulation and supervision, creditworthiness, capitalisation, access to liquidity and operational reliability. A securities settlement facility should also monitor and manage the concentration of its and its participants' credit and liquidity exposures to commercial bank money settlement agents and settlement banks.
- 8.4 If a securities settlement facility conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.
- 8.5 A securities settlement facility's legal agreements with any commercial bank money settlement agents should state clearly when transfers on the books of the relevant commercial bank 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 securities settlement facility and its participants to manage credit and liquidity risks.

Standard 9: Central securities depositories

A securities settlement facility operating a central securities depository 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 securities settlement facility operating a central securities depository should maintain securities in an immobilised or dematerialised form for their transfer by book entry.

- 9.1 A securities settlement facility operating a central securities depository should have appropriate rules, procedures and controls, including robust accounting practices, to safeguard the rights of securities issuers and holders, prevent the unauthorised creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains. These rules and procedures should:
- (a) identify the type of title or interest held by participants for particular securities, to the extent such title or interest is recognised by the facility's rules and procedures;

- (b) clearly identify the way in which the transfer of (or any other forms of dealing with) securities and related payments can be effected through the facility; and
 - (c) ensure that, to the extent permissible by law, the creditors of the operator of the securities settlement facility have no claim over securities or other assets held, deposited or registered by participants in the facility.
- 9.2 A securities settlement facility operating a central securities depository should prohibit overdrafts and debit balances in securities accounts.
 - 9.3 A securities settlement facility operating a central securities depository should maintain securities in an immobilised or dematerialised form for their transfer by book entry. Where appropriate, a securities settlement facility operating a central securities depository should provide incentives to immobilise or dematerialise securities.
 - 9.4 A securities settlement facility operating a central securities depository should protect assets against custody risk through appropriate rules and procedures consistent with its legal framework.
 - 9.5 A securities settlement facility operating a central securities depository should employ a robust system that ensures segregation between its own assets and the securities of its participants, and segregation among the securities of participants. Where supported by the legal framework, a securities settlement facility operating a central securities depository should also support operationally the segregation of securities belonging to a participant's customers on the participant's books and facilitate the transfer of customer holdings.
 - 9.6 A securities settlement facility operating a central securities depository should identify, measure, monitor and manage its risks from other activities that it may perform; additional tools may be necessary in order to address these risks.

Standard 10: Exchange-of-value settlement systems

If a securities settlement facility settles transactions that comprise the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

- 10.1 A securities settlement facility that is an exchange-of-value settlement system should eliminate principal risk by ensuring 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 securities settlement facility settles on a gross or net basis and when finality occurs.
- 10.2 A securities settlement facility that is an exchange-of-value settlement system should eliminate principal risk by linking the final settlement of one obligation to the final settlement of the other through an appropriate delivery versus payment (DvP), delivery versus delivery (DvD) or payment versus payment (PvP) settlement mechanism.

Standard 11: Participant default rules and procedures

A securities settlement facility 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

securities settlement facility can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

- 11.1 A securities settlement facility should have default rules and procedures that enable the securities settlement facility to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default. A securities settlement facility 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.
- 11.2 A securities settlement facility 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 securities settlement facility should:
- (a) require its participants to inform it immediately if they:
 - (i) become subject to, or become 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 securities settlement facility;
 - (b) allow for the cancellation or suspension of a participant or commercial settlement bank from the securities settlement facility:
 - (i) if the participant or commercial settlement bank is in external administration; or
 - (ii) if there is a reasonable suspicion that the participant or commercial settlement bank may become subject to external administration; and
 - (c) allow participant users of a commercial settlement bank which becomes subject to external administration, or which is reasonably likely to become subject to external administration, to quickly nominate a new commercial settlement bank.
- 11.3 A securities settlement facility should publicly disclose key aspects of its default rules and procedures. Where a securities settlement facility settles via a multilateral net batch, arrangements for dealing with any unsettled trades of a defaulting participant that are not guaranteed by a central counterparty, such as reconstituting the multilateral net batch excluding the settlement obligations of the defaulting participant, should be clear to all its participants and should be capable of being executed in a timely manner.
- 11.4 A securities settlement facility should involve its participants and other stakeholders in the testing and review of the securities settlement facility's default procedures. Such testing and review should be conducted at least annually and following material changes to the rules and procedures to ensure that they are practical and effective.
- 11.5 A securities settlement facility 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.

Standard 12: General business risk

A securities settlement facility 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.

- 12.1 A securities settlement facility 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.
- 12.2 A securities settlement facility 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 a securities settlement facility 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.
- 12.3 A securities settlement facility 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, a securities settlement facility 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 SSF Standard 4 on credit risk and SSF Standard 6 on liquidity risk. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.
- 12.4 Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the securities settlement facility to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.
- 12.5 A securities settlement facility 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.

Standard 13: Custody and investment risks

A securities settlement facility should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. A securities settlement facility's investments should be in instruments with minimal credit, market and liquidity risks.

- 13.1 A securities settlement facility 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.
- 13.2 A securities settlement facility should have prompt access to its assets and the assets provided by participants, when required.

- 13.3 A securities settlement facility should evaluate and understand its exposures to its custodians, taking into account the full scope of its relationships with each.
- 13.4 A securities settlement facility'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.

Standard 14: Operational risk

A securities settlement facility 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 securities settlement facility's obligations, including in the event of a wide-scale or major disruption.

Identifying and managing operational risk

- 14.1 A securities settlement facility should establish a robust operational risk management framework with appropriate systems, policies, procedures and controls to identify, monitor and manage operational risks.
- 14.2 A securities settlement facility's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the securities settlement facility's operational risk management framework. Systems, operational policies, procedures and controls should be reviewed, audited and tested periodically and after significant changes.
- 14.3 A securities settlement facility 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.
- 14.4 A securities settlement facility 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.
- 14.5 A securities settlement facility should identify, monitor and manage the risks that key participants, other FMI and service and utility providers might pose to its operations. A securities settlement facility should inform the Reserve Bank of any critical dependencies on utilities or service providers. In addition, a securities settlement facility should identify, monitor and manage the risks its operations might pose to its participants and other FMIs. Where a securities settlement facility 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.
- 14.6 A participant of a securities settlement facility should have complementary operational and business continuity arrangements that are appropriate to the nature and size of the business undertaken by that

participant. The securities settlement facility's rules and procedures should clearly specify operational requirements for participants.

Business continuity arrangements

- 14.7 A securities settlement facility 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 systems can resume operations within two hours following disruptive events. 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 securities settlement facility to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The securities settlement facility should regularly test these arrangements.
- 14.8 A securities settlement facility 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 securities settlement facility.

Outsourcing and other dependencies

- 14.9 A securities settlement facility 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 SSF Standards and equivalent requirements of any other jurisdictions in which it operates.
- 14.10 All of a securities settlement facility'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 securities settlement facility should consult with the Reserve Bank prior to entering into an outsourcing or service provision arrangement for critical functions.
- 14.11 A securities settlement facility 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 securities settlement facility's operations.

Standard 15: Access and participation requirements

A securities settlement facility should have objective, risk-based and publicly disclosed criteria for participation, which permit fair and open access.

- 15.1 A securities settlement facility 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.

- 15.2 A securities settlement facility's participation requirements should be justified in terms of the safety of the securities settlement facility and the markets it serves, be tailored to and commensurate with the securities settlement facility's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, a securities settlement facility should endeavour to set requirements that have the least restrictive impact on access that circumstances permit.
- 15.3 A securities settlement facility 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.

Standard 16: Tiered participation arrangements

A securities settlement facility should identify, monitor and manage the material risks to the securities settlement facility arising from tiered participation arrangements.

- 16.1 A securities settlement facility 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 securities settlement facility arising from such tiered participation arrangements.
- 16.2 A securities settlement facility should identify material dependencies between direct and indirect participants that might affect the securities settlement facility.
- 16.3 A securities settlement facility should identify indirect participants responsible for a significant proportion of transactions processed by the securities settlement facility and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the securities settlement facility in order to manage the risks arising from these transactions.
- 16.4 A securities settlement facility should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.

Standard 17: FMI links

A securities settlement facility that establishes a link with one or more FMIs should identify, monitor and manage link-related risks.

- 17.1 Before entering into a link arrangement, and on an ongoing basis once the link is established, a securities settlement facility should identify, monitor and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that the securities settlement facility is able to comply with these SSF Standards.
- 17.2 A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the securities settlement facility and other FMIs involved in the link.
- 17.3 Where relevant to its operations in Australia, a securities settlement facility should consult with the Reserve Bank prior to entering into a link arrangement with another FMI.
- 17.4 A securities settlement facility operating a central securities depository that links to another central securities depository should measure, monitor and manage the credit and liquidity risks arising from such links. Any credit extended to the linked central securities depository should be covered fully with high-quality collateral and be subject to limits.

- 17.5 Provisional transfers of securities between a securities settlement facility operating a central securities depository and another central securities depository should be prohibited or, at a minimum, the retransfer of provisionally transferred securities should be prohibited prior to the transfer becoming final.
- 17.6 A securities settlement facility operating an investor central securities depository that uses an intermediary to operate a link with an issuer central securities depository should measure, monitor and manage the additional risks (including custody, credit, legal and operational risks) arising from the use of the intermediary.

Standard 18: Disclosure of rules, key policies and procedures, and market data

A securities settlement facility 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 they incur by participating in the securities settlement facility. All relevant rules and key policies and procedures should be publicly disclosed.

- 18.1 A securities settlement facility 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 SSF Standards 1.4, 2.2, 11.3, 13.4, 15.2 and 15.3).
- 18.2 A securities settlement facility should disclose clear descriptions of the system's design and operations, as well as the securities settlement facility's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the securities settlement facility (see SSF Standards 2.8 and 8.5).
- 18.3 A securities settlement facility should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the securities settlement facility's rules, policies and procedures and the risks they face from participating in the securities settlement facility.
- 18.4 A securities settlement facility should complete regularly and disclose publicly responses to the CPSS-IOSCO *Disclosure Framework for Financial Market Infrastructures*. A securities settlement facility also should, at a minimum, disclose basic risk and activity data, as directed by the Reserve Bank from time to time.

Standard 19: Regulatory reporting

A securities settlement facility 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 securities settlement facility should also regularly provide information to the Reserve Bank regarding its financial position and risk controls on a timely basis.

- 19.1 A securities settlement facility should inform the Reserve Bank as soon as reasonably practicable if:
- (a) it breaches, or has reason to believe that it will breach:
 - (i) an SSF 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 securities settlement facility becomes subject to external administration, or if the securities settlement facility 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 securities settlement facility has reasonable grounds for suspecting that a participant will become subject to external administration;
- (e) a participant fails to meet its obligations under the securities settlement facility's risk control requirements or has its participation suspended or cancelled because of a failure to meet the securities settlement facility'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 securities settlement facility; or
- (n) any other matter arises which has or is likely to have a significant impact on its risk control arrangements (see also SSF Standards 1.6, 14.10 and 17.3).

19.2 A securities settlement facility 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 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.

Glossary

Unless the contrary intention appears, the terms in the *Financial Stability Standards for Securities Settlement Facilities* (SSF Standards) have the meanings provided for in this Glossary. Wordings or terms used in this Glossary importing the singular shall include the plural and vice versa where the context requires.

Note: This Glossary is based largely on the glossary to the Principles, and the CPSS Glossary of Terms Used in Payments and Settlement Systems, added to and amended by the Reserve Bank as appropriate.³

Term	Definition
affiliate	This term means 'associated entity' as defined in section 50AAA of the <i>Corporations Act 2001</i> .
book entry	The transfer of securities and other financial assets which does not involve the physical movement of paper documents or certificates (for example, the electronic transfer of securities).
business continuity	A state of uninterrupted business operations. This term also refers to all of the organisational, technical and staffing measures used to ensure the continuation of operations following a disruption to a service, including in the event of a wide-scale or major disruption.
central bank money	A liability of a central bank, in this case in the form of deposits held at the central bank, which can be used for settlement purposes.
central counterparty	An entity that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer, and thereby ensuring the performance of open contracts.
central securities depository	An entity that provides securities accounts, central safekeeping services and asset services, which may include the administration of corporate actions and redemptions, and plays an important role in helping to ensure the integrity of securities issues (that is, ensure that securities are not accidentally or fraudulently created or destroyed or their details changed).
clearing	The process of transmitting, reconciling and, in some cases, confirming transactions prior to settlement, potentially including the netting of transactions and the establishment of final positions for settlement. For the clearing of futures and options, this term also refers to the daily balancing of profits and losses and the daily calculation of collateral requirements.
collateral	An asset or third-party commitment that is used by a collateral provider to secure an obligation vis-à-vis a collateral taker.
commercial bank money	A liability of a commercial bank, in the form of deposits held at the commercial bank, which can be used for settlement purposes.
conflict of laws	An inconsistency or difference in the laws of jurisdictions that have a potential interest in a transaction.
counterparty	A party to a trade.

³ A Glossary of Terms Used in Payments and Settlement Systems is available at <<http://www.bis.org/publ/cpss00b.pdf>>.

Term	Definition
credit risk	The risk that a counterparty, whether a participant or other entity, will be unable to meet fully its financial obligations when due, or at any time in the future.
current exposure	The loss that a securities settlement facility (or in some cases, its participants) would face immediately if a participant were to default. Current exposure is technically defined as the larger of zero or the market value (or replacement cost) of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty.
custody risk	The risk of loss on assets held in custody in the event of a custodian's (or sub-custodian's) insolvency, negligence, fraud, poor administration or inadequate recordkeeping.
default	An event stipulated in an agreement as constituting a breach or default. Generally, such events relate to a failure to complete a transfer of funds or securities in accordance with the terms and rules of the system in question.
deferred net settlement (DNS)	A net settlement mechanism that settles on a net basis at the end of a predefined settlement cycle.
delivery versus delivery (DvD)	A securities settlement mechanism that links two securities transfers in such a way as to ensure that delivery of one security occurs if and only if the corresponding delivery of the other security occurs.
delivery versus payment (DvP)	A securities settlement mechanism that links a securities transfer and a funds transfer in such a way as to ensure that delivery occurs if and only if the corresponding payment occurs.
dematerialisation	The elimination of physical certificates or documents of title that represent ownership of securities so that securities exist only as accounting records.
external administration	This term has the meaning given by section 5 of the <i>Payment Systems and Netting Act 1998</i> .
final settlement	The irrevocable and unconditional transfer of an asset or financial instrument, or the discharge of an obligation by the securities settlement facility or its participants in accordance with the terms of the underlying contract. Final settlement is a legally defined moment.
financial market infrastructure (FMI)	A multilateral system among participating institutions, including the operator of the system, used for the purposes of clearing, settling or recording payments, securities, derivatives or other financial transactions. Examples of FMIs include central counterparties, securities settlement facilities, securities settlement systems, central securities depositories, payment systems and trade repositories.
general business risk	Any potential impairment of a securities settlement facility's financial position (as a business concern) as a consequence of a decline in its revenues or an increase in its expenses, such that expenses exceed revenues and result in a loss that must be charged against capital.

Term	Definition
governance	The set of relationships between a securities settlement facility's owners, board of directors (or equivalent), management and other relevant parties, including participants, authorities and other stakeholders (such as participants' customers, other interdependent FMIs and the broader market).
haircut	A risk control measure applied to underlying assets whereby the value of those underlying assets is calculated as the market value of the assets reduced by a certain percentage (the 'haircut'). Haircuts are applied by a collateral taker in order to protect itself from losses resulting from declines in the market value of a security in the event that it needs to liquidate that collateral.
immobilisation	The act of concentrating the location of securities in a depository and transferring ownership by book entry.
investment risk	The risk of loss faced by a securities settlement facility when it invests its own or its participants' resources, such as collateral.
investor central securities depository	A term used in the context of central securities depository links. An investor central securities depository – or a third party acting on behalf of the investor central securities depository – opens an account in another central securities depository (the issuer central securities depository) so as to enable the cross-system settlement of securities transactions.
issuer central securities depository	A central securities depository in which securities are issued (or immobilised). The issuer central securities depository opens accounts allowing investors (in a direct holding system) and intermediaries (including investor central securities depositories) to hold these securities.
legal risk	The risk of the unexpected application of a law or regulation, usually resulting in a loss.
linked FMI	An FMI that is connected with one or more other FMIs, either directly or through an intermediary, according to a set of contractual and operational arrangements between the FMIs involved in the link.
liquidity risk	The risk that a counterparty, whether a participant or other entity, will have insufficient funds to meet its financial obligations as and when expected, although it may be able to do so in the future.
money settlement agent	The entity whose assets are used to settle the ultimate payment obligations arising from securities transfers within a securities settlement facility, or other clearing and settlement activities. Accounts with the money settlement agent are held by settlement banks, which may act on their own behalf and/or offer payment services to participants that do not have accounts with the money settlement agent.
multilateral net batch	The settlement of groups of payments, transfer instructions or other obligations together at a discrete, often pre-specified time, where these obligations have been offset among multiple participants.
operational risk	The risk that deficiencies in information systems or internal processes, human errors, management failures or disruptions from external events will result in the reduction, deterioration or breakdown of services provided by a securities settlement facility.

Term	Definition
payment versus payment (PvP)	A settlement mechanism that ensures that the final transfer of a payment in one currency occurs if and only if the final transfer of a payment in another currency or currencies takes place.
potential future exposure	Any potential credit exposure that a securities settlement facility could face at a future point in time. Potential future exposure is technically defined as the maximum exposure estimated to occur at a future point in time at a high level of statistical confidence. Potential future exposure arises from potential fluctuations in the market value of a participant's open positions between the time they are incurred or reset to the current market price, and the time they are liquidated or effectively hedged.
principal risk	The risk that a counterparty will lose the full value involved in a transaction, for example, the risk that a seller of a financial asset will irrevocably deliver the asset, but not receive payment.
procyclicality	Changes in risk management requirements or practices that are positively correlated with business or credit cycle fluctuations and that may cause or exacerbate financial instability.
real-time gross settlement (RTGS)	The real-time settlement of payments, transfer instructions or other obligations individually on a transaction-by-transaction basis.
reconciliation	A procedure to verify that two sets of records issued by two different entities match.
related body	A 'related body corporate' as defined in section 9 of the Corporations Act.
replacement cost	The unrealised gain on the unsettled contract or the cost of replacing the original contract at market prices that may be changing rapidly during periods of stress.
repurchase agreement (repo)	A contract to sell and subsequently repurchase securities at a specified date and price.
securities	Any financial product (within the meaning given in the Corporations Act) of a kind in relation to which obligations are prescribed under the Corporations Regulations 2001 for the purposes of section 768A(1)(b) of the Corporations Act.
securities settlement facility	A CS facility that enables its participants to transfer title to or other interests in securities, typically in return for payment. A securities settlement facility may also operate a central securities depository.
segregation	A method of protecting customer collateral and contractual positions by holding or accounting for them separately from those of the direct participant (such as a carrying firm or broker).
settlement bank	The entity that maintains accounts with the money settlement agent in order to settle payment obligations arising from securities transfers, both on its own behalf and for other market participants.
settlement risk	The general term used to designate the risk that settlement in a funds or securities transfer system will not take place as expected. This risk may comprise both credit and liquidity risk.

Term	Definition
stress testing	The estimation of credit and liquidity exposures that would result from the realisation of extreme price changes.
systemic risk	The risk that the inability of one or more participants to perform as expected will cause other participants to be unable to meet their obligations when due.
unwinding	The process used to recalculate obligations in some net settlement systems where transfers between the accounts of participants are provisional until all of them have finally discharged their settlement obligations. If a particular participant fails to settle, some or all of the provisional transfers involving that participant are deleted from the system and the settlement obligations of the remaining participants are recalculated.
value date	The day on which the payment, transfer instruction or other obligation is due and the associated funds and securities are typically available to the receiving participant.