

## A2.2 Austraclear

Austraclear is a wholly owned subsidiary of ASX Settlement Corporation Limited, itself a wholly owned subsidiary of ASX Limited (see 'ASX Group Structure' in Section 2.3.1). It provides settlement and depository services for debt securities, and settlement services for derivatives traded on the ASX 24 market and for margin payments in ASX Clear and ASX Clear (Futures).

### Principle 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.**

**Rating: Observed**

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 1. The legal basis of Austraclear is described in further detail under the following Key Considerations.

**1.1 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.**

*Legal basis*

Austraclear's settlement arrangements for transactions entered into by its participants require a high degree of legal certainty. Key components of the legal framework under which the SSF operates are:

- Austraclear holds a clearing and settlement (CS) facility licence, under Part 7.3 of the *Corporations Act 2001*. This licence is administered by ASIC in consultation with the Bank, with the Minister acting as ultimate decision-maker on licensing matters.
- Austraclear has defined Regulations and Procedures. Under section 822B of the *Corporations Act*, these Regulations have effect as a contract under seal between: Austraclear and each of its participants; each participant and each other participant; and each participant and each issuer. The Regulations and Procedures set out the rights and obligations of participants and Austraclear, including in the event of default or suspension.
- The finality of settlements undertaken by Austraclear is protected by its approval, and the approval of the Reserve Bank Information and Transfer System (RITS), as a real-time gross settlement (RTGS) system under Part 2 of the PSNA (see Key Consideration 1.4).

The legal basis of Austraclear's activities is reviewed by ASX Legal whenever there are material amendments to the Regulations or Procedures. Two such reviews occurred for Austraclear during 2013/14.

Austraclear admitted ASX Collateral Management Services Pty Limited (ASX Collateral), as a Special Purpose Participant in October 2013. ASX Collateral operates a centralised collateral management service (CCMS) under which exchange of title to debt securities occurs in Austraclear. The legal basis for the operation of the CCMS in Austraclear and the status of ASX Collateral as a Special Purpose Participant is set out in the Austraclear Regulations. Legal arrangements between ASX Collateral and customers of the CCMS (which must be Full Participants) are set out in standard-form Collateral Management Service Agreements

(CMSAs). ASX has obtained a legal opinion in relation to the use of CMSAs that has identified no material legal risks. The standard form CMSAs specify the nature of services that the Collateral Manager provides to users. These agreements are between ASX Collateral and users of the collateral service; Austraclear is not a party to these contracts.

The Austraclear Regulations provide for settlement instructions to be submitted to Austraclear by a Collateral Manager admitted as a Special Purpose Participant and acting as agent for its customers, which must be admitted as Full Participants.

#### *Legal entity*

Austraclear is a wholly owned subsidiary of ASX Settlement Corporation Limited, which is itself a wholly owned subsidiary of ASX Limited. As a separate legal entity, Austraclear's securities settlement activities are separate from the activities conducted by ASX's other clearing and settlement (CS) facilities and the rest of the ASX Group, notwithstanding the sharing of operational resources across multiple entities within the group.

Austraclear provides settlement services and related depository services for debt securities, and settlement services for derivatives traded on the ASX 24 market and for margin payments in ASX Clear and ASX Clear (Futures), in accordance with the Austraclear Regulations and Procedures. In July 2014 Austraclear expanded the range of its services through the launch of a settlement service for foreign currency payments, initially covering payments denominated in Chinese renminbi (RMB) (see SSF Standard 8). The foreign currency settlement service is designed to operate independently from Austraclear's Australian dollar services. Austraclear's ancillary services do not have a distinct profile from, or pose additional risks to, its activity of operating an SSF.

#### *Rights and interests*

The rights and interests of Austraclear, its participants and, where relevant, its participants' customers in securities deposited with Austraclear are defined in Austraclear's Regulations and Procedures (see Principle 11).

### **1.2 A securities settlement facility should have rules, procedures and contracts that are clear, understandable, and consistent with relevant laws and regulations.**

Section 822A of the Corporations Act establishes a framework to prescribe the matters that must be dealt with in the Regulations and those that may be considered under the Procedures. Rule changes are subject to a ministerial disallowance process.

Austraclear's Regulations and Procedures are supplemented with explanatory material, published on the ASX public website and the ASX restricted participant website, to support participants' (and prospective participants') understanding of the risks they face through participation in the system. Publicly available material includes high-level descriptions of Austraclear's operations and settlement process, the Austraclear system (including test system), business continuity arrangements, classes of Austraclear participant, technical documentation, and fees and charges.

There is a clear process for changing Austraclear's Regulations and Procedures. Proposed rule changes may be submitted informally to ASIC. In consultation with the Bank, ASIC will consider the changes and advise ASX of any regulatory concerns. Once such concerns are satisfactorily addressed, ASIC will invite formal submission of the proposed changes, which triggers a 28-day 'disallowance' period, during which the Minister may choose to disallow the

changes. The Minister considers a number of factors, including whether the proposed changes are consistent with the public interest. To assist the Minister in this process, ASIC provides detailed advice to the Minister, incorporating the views of the Bank as appropriate. If changes to the Regulations are not disallowed by the Minister, they are notified to participants via the ASX website.

**1.3 A securities settlement facility should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.**

The legal basis for the activities of Austraclear and the facility's protection as an approved RTGS system under the PSNA – see also Key Consideration 1.4 – are described on the ASX public website in its Disclosure Framework document, which sets out in detail how each CS facility meets the requirements of each Principle within the *Principles for Financial Market Infrastructures* (PFMIs) developed by the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) (see Key Consideration 23.2).<sup>1</sup>

ASX, on behalf of Austraclear, submits an Annual Group Licence Report to ASIC and the Bank. This report sets out the legal basis for the CS facilities' activities under their licence obligations, and is used by ASIC in the preparation of ASIC's Market Assessment Report for the ASX Group.

Austraclear may seek independent legal opinions on relevant legal matters relating to significant new services, including any implications that their introduction may have for the legal basis of existing functionality. These opinions may, in some circumstances, be shared with participants or other stakeholders for their information, particularly to demonstrate that new Regulations will have the intended legal effect. For example, in assessing the legal basis of its foreign currency settlement service ASX sought external legal advice regarding the extension of finality protections under Part 2 of the PSNA to transactions settled under the new service.

**1.4 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.**

*Settlement finality*

The finality of Austraclear's settlement process is protected by:

- its approval as an RTGS system under Part 2 of the PSNA. This approval protects the finality of payments or securities settlements made through Austraclear in the event of a participant entering external administration (see Key Consideration 8.1).
- the approval of RITS as an RTGS system under Part 2 of the PSNA (see Principle 9). This approval protects payments between participants that are 'Participating Banks' from being voided in the case of a Participating Bank entering external administration.

---

<sup>1</sup> Available at <[http://www.asx.com.au/documents/regulation/pfmi\\_disclosure\\_framework.pdf](http://www.asx.com.au/documents/regulation/pfmi_disclosure_framework.pdf)>.

### *Enforceability of ASX rules while under external administration*

ASX Legal has analysed the legal enforceability of Austraclear's Regulations upon the SSF's entry into external administration, and has identified no material legal risk to enforceability.

#### **1.5 A securities settlement facility conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.**

Although Austraclear's operations are based in Australia, participants of Austraclear include subsidiaries and branches of entities that are based in foreign countries. Austraclear's Regulations are governed by Australian law and require that all of its participants submit to the exclusive jurisdiction of New South Wales courts. ASX Legal's analysis of potential conflicts of law across jurisdictions has identified no material legal risk.

## **Principle 2: Governance**

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

### ***Rating: Observed***

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 2. Austraclear's governance arrangements are described in further detail under the following Key Considerations.

#### **2.1 A securities settlement facility should have objectives that place a high priority on the safety and efficiency of the securities settlement facility and explicitly support financial stability and other relevant public interest considerations.**

The high-level objectives of Austraclear are set out in the CS Boards' Charter, which is available on the ASX website. The objectives prioritise on the Boards' responsibilities in the area of risk management and, in particular, Austraclear's responsibility for complying with the Bank's Financial Stability Standards (FSS), which are aligned with stability-related requirements of the Principles.

Austraclear's objectives recognise the public interest. These objectives are reflected in the ASX Limited Board Charter, which provides that the Board has a responsibility to oversee the conduct of the affairs of the ASX Group consistent with licence obligations, as well as public policy objectives directed at financial market and payments system integrity. The CS Boards' Charter also specifically acknowledges the Board's public interest responsibilities, as well as its obligations under Part 7.3 of the Corporations Act (dealing with licensing of CS facilities). These include that Austraclear, to the extent that it is reasonably practicable to do so, comply with relevant FSS and do all (other) things necessary to reduce systemic risk arising from its services, and that its services are provided in a fair and effective way.

To support the interests of its customers, ASX has developed a Customer Charter, which is referenced in the CS Boards' Charter. The Customer Charter commits that ASX: work with its customers to deliver products and services that meet their needs and provide them with choice; make its products and services available on a non-discriminatory basis and on reasonable commercial terms; and manage its businesses and operations on a commercial basis to benefit its customers and provide appropriate returns to ASX shareholders. The

Customer Charter recognises ASX's role as a provider of critical infrastructure to the Australian financial markets and commits to make the necessary investments to ensure it can fulfil this role and provide confidence to market participants, investors and regulators.

Austraclear's governance arrangements allow for appropriate consideration of stakeholder views. When considering major operational or risk management changes, or new services, ASX uses stakeholder forums, and formal and informal consultation processes to communicate proposed changes to relevant stakeholders (see Key Consideration 2.7). Consultations and responses to consultations are made available on the ASX website. In addition, the ASX Group has disclosure obligations under the Corporations Act and Listing Rules which it manages in accordance with those laws and rules.

**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, relevant authorities, participants and, at a more general level, the public.**

The governance arrangements of Austraclear are documented on its public website. This documentation includes the Charters of the ASX Limited Board, the CS Boards (including that of Austraclear), and other subsidiary boards and committees. The Charter documents provide information about the role and composition of the CS Boards and Board committees, as well as the key senior managers of the settlement facilities; namely the Managing Director and CEO, and the Executive responsible for settlement risk. Profiles of CS facility directors are also publicly available online. Key governance policies and charters are reviewed regularly by the relevant boards and committees.

The ASX Limited Annual Report provides information about ASX Group's risk management arrangements, including the role of boards, key committees, key subsidiary boards (e.g. ASX Compliance) and the roles of senior group executives who report directly to the Managing Director and CEO. Explanatory documentation on the website also describes: the FSS and the CPSS-IOSCO Principles; group and business structure, including an organisational chart showing senior group executives; and risk management policies (in summary form).

Under the Corporations Act, ASX must notify ASIC as soon as practicable after a person becomes or ceases to become a director, secretary or senior manager of Austraclear, including when a person changes from one of those positions to another. Changes to senior risk management personnel are also notified to the Bank.

**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 review both its overall performance and the performance of its individual board members regularly.**

Ultimate responsibility for the oversight of risks faced by Austraclear lies with the ASX Limited Board and the Austraclear Board. The ASX Limited Board is responsible for the overall business strategy of the ASX Group, and oversight of enterprise risk management policy. The ASX Limited Board Charter delegates certain responsibilities to the Austraclear Board, including the review and oversight of Austraclear's settlement-related risk, and its compliance with the FSS. The CS Boards' Charter elaborates on other roles and responsibilities of the Austraclear Board. The CS Boards' Charter places requirements on the structure of the

CS Boards, including that the majority of directors and the Chair be independent. The Austraclear Board meets regularly (seven times in 2013/14) and receives detailed reports on Austraclear's business and operations, risk management and financial performance.

Board performance is dealt with periodically in private session by the relevant boards. The process may be facilitated by external independent consultants. A number of tools are used, which may include private session review, skills matrices and surveys, and externally facilitated group discussions. Details of Board performance reviews are set out in the ASX Limited Annual Report (the same process applies for the key subsidiary boards).

The CS Boards' Charter sets out how the Boards address directors' interests and potential conflicts. Directors of the CS Boards must disclose all material personal interests (such as shareholdings, directorships and consultancy arrangements) which may potentially conflict with their duties. If there is a change in a director's material personal interests, the director must notify that change at the next meeting. If there is a real possibility of a material conflict of interest and duty on a matter subject to vote at a meeting of the CS Boards, the director must not be present for the discussion or vote related to that matter.

#### **2.4 The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).**

At the end of 2013/14, the ASX Limited Board had eight members, comprising the ASX CEO and seven independent, non-executive directors. As set out in the CS Boards' Charter, the CS Boards, in consultation with the Nomination Committee and the ASX Limited Board, determine the composition of the CS Boards, with directors selected based on relevant skills and expertise. Currently, the Austraclear Board comprises one executive director (the ASX CEO) and six non-executive directors. During 2013/14, one non-executive director resigned and two new directors were appointed. Three of the non-executive directors, including the Chair, are also members of the ASX Limited Board, while the remaining three, are external directors appointed for their expertise in clearing and settlement operational and risk management matters. This ensures that directors have the capacity to conduct informed independent review of relevant issues. During 2013/14 ASX made changes to the composition of the CS Boards. Previously, all four CS Boards shared common directors; now, the ASX Clear (Futures) and Austraclear Boards share common directors, but two of these directors do not serve on the ASX Clear or ASX Settlement Boards. This change was made primarily for business reasons, but also supports ASX's conflict handling arrangements (see below under 'Group structure').

ASX has adopted a policy that the majority of directors on each of its CS Boards must be independent. The Board Policy and Guideline to Relationships Affecting Independent Status is available on the ASX website. The independence of directors is assessed according to this policy, which is aligned to the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations* for listed companies. The policy requires, for example, that independent directors be free of business or other relationships that could interfere with the independent exercise of the director's judgement. Specifically considered is whether the director is a substantial shareholder of ASX, as well as whether in the last three years the director was previously employed by ASX or was an adviser to ASX. The biographies of the directors, which show their relationship with other ASX Group companies, are set out on the ASX website.

Selection, succession planning and training for ASX Limited and CS Board members are dealt with in private session by the Nomination Committee and Boards at appropriate intervals. New directors receive a comprehensive induction from Board and Nomination Committee members, as well as senior managers and other key staff. Directors' fees at both ASX Limited and Austraclear are considered by the ASX Limited Remuneration Committee, recognising the level of skill and expertise that a director must have to effectively meet its responsibilities. Remuneration of directors is determined in private session by the ASX Limited Board on the recommendation of the Remuneration Committee at regular intervals. The ASX Limited Board reviews its fees regularly to ensure that ASX non-executive directors are remunerated fairly for their services, recognising the level of skill and experience required. It also reviews its fees to ensure that it has in place a fee scale which enables ASX to attract and retain appropriately skilled and qualified non-executive directors. Non-executive directors' fees are broadly aligned to the top quartile of the marketplace. In conducting a review, the Board may take advice from an external remuneration consultant. The process involves benchmarking against a group of peer companies. The last fee review took place at the end of 2013 following changes to relevant governance and regulatory arrangements. The revised fees took effect on 1 January 2014.

#### *Group structure*

The potential for intragroup conflicts arising from ASX's group structure is addressed by 'intragroup' service agreements, which set out the basis on which other group entities will provide services to the CS facilities and specify that the entities providing the services must have sufficient financial and other resources to meet their obligations. These agreements provide that ASX Group staff are under a duty to act in the best interests of the facility that is receiving the services.

ASX's governance arrangements are designed to ensure that shared directorships within the ASX Group cannot compromise each CS facility's compliance with its licence obligations and the Principles. ASX considers that there is limited potential for shared directorships to create conflicts between ASX's group-wide commercial interests and the risk management function of the CS facilities. More broadly, it considers that conflicts between directors' roles on the CS Boards and the ASX Limited Board are unlikely given the distinct roles the separate entities perform, and in view of group-wide arrangements to manage matters such as operations and compliance. If a conflict were to arise, a director sitting on multiple CS Boards would be expected to make decisions in the best interests of each facility.

The restructuring of the CS Boards to reduce the number of common directors between each of the CS facilities and ASX Limited further limits the potential for conflict. Two directors will now be able to form a quorum of the Austraclear Board, allowing matters that raise potential conflicts of interest to be considered and voted on without the involvement of directors that are also on the ASX Limited Board.

#### **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 discharge their responsibilities for the operation and risk management of the securities settlement facility.**

ASX has clear and direct reporting lines between management and the CS Boards. This is set out in the CS Boards' Charter, along with the roles and responsibilities of the Managing Director and CEO, the Chief Risk Officer (CRO), and the Group Executive, Operations (GE,

Operations). The Managing Director and CEO has responsibility for the overall operational and business management and profit performance of ASX, while the GE, Operations is responsible for the overall settlement risk management of the CS facilities and for ensuring that the SSFs meet regulatory obligations placed on them. The GE, Operations has a direct reporting line to the CS Boards.

ASX has a comprehensive remuneration policy and performance management framework in place, which aims to ensure that management personnel have an appropriate mix of skills and experience to discharge their responsibilities. The ASX Limited Remuneration Committee has delegated responsibility from the ASX Limited Board to conduct detailed examination of matters including oversight of the remuneration and incentive framework, succession plans, recruitment, retention and termination strategies, and the remuneration of the Managing Director and CEO and ASX Group non-executive directors. The Committee members are appointed by the ASX Limited Board, and must consist of only non-executive directors, with at least three members, a majority of independent directors, and an independent chair who is not Chairman of ASX Limited. The Committee has direct access to ASX senior management and the authority to seek independent advice. The CS Boards have delegated responsibility to the Committee for compensation arrangements and performance management processes relating to the CRO and the GE, Operations. The CS Boards provide input on the setting of Key Performance Indicators and may review the performance outcomes for the CRO and the GE, Operations.

ASX carries out succession planning and management processes in order to ensure leadership continuity in key positions, and develop intellectual depth and business knowledge. This includes the biannual review of a 'talent assessment tool' by Group Executives and Human Resources to identify and manage the development of high potential staff according to individual and business needs. Succession and contingency planning is conducted for Group Executives, General Managers and other key staff.

**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.**

ASX has a documented risk management framework, which is described under Key Consideration 3.1. The CS Boards are responsible for approving and reviewing high-level risk management policy relevant to clearing and settlement operations. The Boards approve all new clearing and settlement risk policies and standards, as well as material changes to existing clearing and settlement policies and standards. The Boards consider these policies and standards at a concurrent meeting; where the policy or standard is relevant to more than one facility, the Boards of those facilities would simultaneously determine whether to approve the policy or standard. If the policy requirements under consideration differ across facilities, the Boards of each relevant facility would separately determine whether to approve the policy or standard (during the concurrent meeting). Board feedback is incorporated before risk policies and standards are approved.

Responsibilities under the high-level risk management policy are distributed as follows:

- Detailed reporting to the CS Boards occurs quarterly on the implementation of risk management policies and standards, and on broader management and operational



matters. Internal Audit conducts a rotational risk-based audit program, which includes ensuring that relevant operational units comply with Board approved policies and standards, where necessary using external specialists to assist with reviews. The CS Boards may also request external reviews. The ASX Settlement Risk Policy Framework, which provides a formal structure for the development, governance and review of settlement risk policies and standards, was approved by the CS Boards in November 2013. The ASX Settlement Risk Policy Framework will be reviewed annually. ASX are currently in the process of formally documenting the policies and standards referenced in the Framework. The Bank will continue to monitor the implementation of those policies and standards.

- The Audit and Risk Committee has responsibility for the oversight of the Enterprise Risk Framework.
- The Enterprise Risk Management Committee, comprising executives from across the departments, is responsible for enterprise risk management policy and reviewing controls, processes and procedures to identify and manage risks. This committee is also responsible for formally approving significant operational risk policies prepared by individual departments.
- Individual departments are responsible for: identifying business-specific risks; applying controls; maintaining risk-management systems; reporting on the effectiveness of risk controls; and implementing enhancements and taking remedial action as appropriate. Each department is required to maintain a record of its risk profile, reviewing this on a six-monthly basis and updating as appropriate. This record includes 'Key Risk Indicators' and action plans to address any identified risk that is not adequately mitigated. Policies are formally reviewed every 18 months to three years. More frequent reviews are undertaken where there are potential changes to technology, legal or regulatory requirements, or business drivers.

The Clearing and Settlement Operations and Settlement Services departments have responsibilities relevant to the management of settlement risks that are defined in ASX's Settlement Risk Policy Framework.

Directors are entitled to obtain independent advice. The Annual Report addresses directors' access to information, management and advice. To the extent that directors wish to seek independent advice, they can raise this in board meetings, with the Managing Director and CEO, or with the Chairman.

#### *Internal audit*

ASX maintains an internal audit plan that provides for a three-to-five year review cycle of key operational and risk management processes, and internal control mechanisms that are governed by ASX's Enterprise Risk Framework, business continuity framework, enterprise compliance framework and internal audit methodology. The internal audit plan is approved by the ASX Limited Audit and Risk Committee and the audit work that is relevant to the CS Boards and ASX Compliance Board is endorsed by those Boards. The key governance frameworks are reviewed by external independent experts, as required. ASX's internal audit arrangements are set out in an Internal Audit Charter which is reviewed and approved by the ASX Limited Audit and Risk Committee on an annual basis and made available on the ASX public website.

The Internal Audit department is a separate department within ASX that reports to the CRO for administrative purposes, and the Audit and Risk Committee and Managing Director and CEO for audit purposes. The Internal Audit department's reporting structure also includes reports to the CS Boards and ASX Compliance Board. Internal Audit's principal objective is to 'provide independent, objective assurance and consulting services designed to add value and improve the operations of ASX'. Its scope covers the policies, processes and procedures of all risk management and internal control systems. The General Manager of Internal Audit has direct access to the ASX Limited Audit and Risk Committee, CS Boards and ASX Compliance Board. Members of the Internal Audit department are required to hold appropriate undergraduate and postgraduate qualifications relevant to their roles.

The role and performance of the Internal Audit function is regularly reviewed by the ASX Limited Audit and Risk Committee. Internal Audit is also reviewed by external independent auditors on a three-year cycle. The last such audit was carried out in 2011, with the next assessment scheduled for October/November 2014.

ASX has a clearly defined methodology for internal audit, based on the International Professional Practices Framework set out by the Institute of Internal Auditors.<sup>2</sup> The audit process includes phases for planning, fieldwork, reporting, final sign-off, and issues logging and follow-up. The planning phase includes the preparation of terms of reference that define the purpose, timing, approach and scope of the audit.

The internal audit methodology allows for ad hoc reviews if, for example, material new risks are identified or other changes to ASX's business occur. This is a matter which the General Manager, Internal Audit and the Audit and Risk Committee consider. The ASX Compliance Board and the CS Boards may also request ad hoc reviews.

**2.7. The board 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. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.**

The interests of direct and indirect participants and other relevant stakeholders are recognised in the ASX Limited Board Charter, the CS Boards' Charter and the ASX Customer Charter (see Key Consideration 2.1).

The views of participants and other stakeholders are sought through formal and informal means. Austraclear routinely conducts stakeholder consultations when considering major changes to existing services or new service offerings, such as the introduction of ASX Collateral. Participants' views may also be gathered through the induction program for new participants, as well as ongoing participant liaison and compliance checks. During 2013/14, Austraclear formed an Advisory Committee to provide an additional formal structure for user feedback on Austraclear's design, operation and the development of its forward work plan. The Advisory Committee is made up of representatives from eight of Austraclear's major participants, and representatives from the Bank and the Australian Financial Markets Association. The first quarterly meeting of the Advisory Committee took place on 31 March 2014.

---

<sup>2</sup> The Institute of Internal Auditors is the leading international organisation representing internal auditors. It has developed a set of standards that provide a framework for carrying out and evaluating the performance of internal audits.

## Principle 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.

**Rating: Broadly observed**

The Bank's assessment is that Austraclear broadly observes the requirements of Principle 3. In order to fully observe Principle 3, Austraclear should:

- implement plans to enhance its recovery plan consistent with forthcoming CPSS-IOSCO guidance on recovery planning.

Austraclear's risk management framework is described in further detail under the following Key Considerations.

**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. Risk-management frameworks should be subject to periodic review.**

### *Identification of risk*

ASX's high-level framework for risk management is described in its Enterprise Risk Management Policy. This policy divides risks identified by ASX into two broad groupings: strategic risks and operational risks. Operational risks are further categorised into financial risks, legal and regulatory risks, and technological and operational risks. Specific risks identified by ASX are described within these broad categories. For each identified risk, ASX judges how likely it is the risk event will occur within the next 12 months and the potential impact. Reputational and participant impacts are considered along with the financial, operational and regulatory impacts of risks.

### *Comprehensive risk policies, procedures and controls*

ASX's Enterprise Risk Management Policy has been developed with reference to the international standard ISO 31000 *Risk Management – Principles and Guidelines* (see Key Consideration 2.6).<sup>3</sup> At a high level, the ASX Enterprise Risk Management Policy outlines: the overall risk environment in the ASX Group; the objectives of risk management policies; the process by which risks are identified and assessed; the controls in place to detect and mitigate risks; and how risks are monitored and communicated. ASX's stated tolerance for financial, operational, legal and regulatory risks is 'very low'.

ASX uses Key Risk Indicators to measure levels of risk in the organisation and categorise risk levels according to a scale: satisfactory; within risk tolerance but requiring action to further control the level of risk; exceeding ASX's risk tolerance.

The Enterprise Risk Management Policy also assigns specific risk responsibilities across the ASX Group, including to the ASX Limited Board of Directors, the Audit and Risk Committee, the Enterprise Risk Management Committee, the General Manager, Enterprise Risk and managers of individual business units. Managers of each business unit are responsible for

---

<sup>3</sup> ISO is an international standard-setting body and ISO 31000 is considered to be relevant guidance for enterprise risk management. The ISO 31000 standard has been reproduced by Standards Australia and Standards New Zealand as AS/NZS 31000.

identifying and monitoring risks relevant to their unit's activities, as well as for designing and implementing risk management policies and controls to manage identified risks. Business unit managers assess the appropriateness and operational effectiveness of these controls twice a year; these assessments are reviewed by Internal Audit and the Enterprise Risk Management Committee.

In 2013/14, ASX adopted an updated and formalised settlement risk policy framework to better align both it and related governance structures with the requirements of the Principles embedded in the FSS. The Settlement Risk Policy Framework sets out a comprehensive set of settlement-related risk policies to support the risk management approach of ASX's SSFs, including Austraclear. These policies govern more granular internal standards, which in turn govern detailed procedures for the management of settlement-related risks. The structure of policies, standards and procedures reflects the requirements of the FSS. ASX will be continuing work to finalise and update the policies and standards covering all relevant aspects of the FSS, which it aims to complete over 2014/15. The Bank will continue to monitor the progress made in this work.

A number of boards and internal committees oversee settlement risk management policy, including:

- *The CS Boards.* Each CS facility has a board (see Key Consideration 2.3 and 'ASX Group Structure' in Section 2.3.1), which shares members with the other ASX CS facilities, has oversight of the Settlement Risk Policy Framework, and is responsible for any significant amendments. Policies and designated key standards under the framework are governed by the CS Boards.
- *The Settlement Risk Policy Committee (SRPC).* The SRPC was formed in November 2013, to review and approve clearing risk policies and standards prior to submission to the CS Boards. The SRPC is chaired by the GE, Operations and includes the ASX Group Legal Counsel, General Manager of Clearing and Settlement Operations and the General Manager of Settlement Services. It will meet as needed when settlement policy matters arise.
- *The Capital and Liquidity Committee (CALCO).* CALCO is constituted to ensure the structural integrity and efficient use of the liquidity, on- and off-balance sheet assets, liabilities and capital resources of the ASX Group. CALCO advises on changes to settlement risk policies related to developments in capital, liquidity and balance sheet management. CALCO is chaired by the CRO and comprises senior managers and executives from Finance, Risk and Internal Audit. CALCO generally meets on a quarterly basis.
- *The SSF Risk, Operations and Compliance Committee (SROCC).* SROCC is chaired by the GE, Operations and is made up of senior managers and executives from the settlement operations and compliance areas of ASX. The committee acts as an information-sharing and discussion body for the purpose of enhancing ASX's ability to identify, assess and reduce systemic risk, operational or compliance risk, and manage settlement risk. The SROCC currently meets on a monthly basis.
- *The Participant Incident Response Committee (PIRC).* The PIRC is responsible for coordinating ASX's response to a settlement participant incident, and provides input into policy determinations and settings as necessary in response to such incidents. The PIRC is chaired by the GE, Operations, and is made up of senior staff from operational, risk

management, compliance and legal departments. Meetings of the PIRC are convened as required to address an actual or potential participant incident.

#### *Internal controls*

ASX's risk management policies are generally reviewed formally every 18 months to 3 years, although more frequent reviews may occur depending on changes to technology, business drivers or legal requirements. Reviews are conducted by specific working groups and committees. Final approval of reviews for more significant policies is the responsibility of the Enterprise Risk Management Committee. Under the Enterprise Risk Management Policy, ASX's business units are required to update a risk profile every six months, which identifies relevant risks and sets out planned actions to respond to those risks.

Risk management arrangements are also subject to periodic review by Internal Audit. Such audits provide assurance that the risk management framework continues to be effective. Risk management arrangements may also be subject to review by external experts from time to time. The last such review of the Enterprise Risk Management Policy was undertaken by PricewaterhouseCoopers in 2011 and the next review is scheduled for the second half of 2015.

Previously, the Enterprise Risk Management Policy was reviewed by the Audit and Risk Committee approximately every three years, with the committee informed of material changes in the interim. Following the most recent review in August 2013, future reviews will be conducted on a two year cycle.

### **3.2 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.**

Austraclear may apply sanctions to, or place additional requirements on, participants that fail to comply with its Regulations. Participants may ultimately be required to seek alternative settlement arrangements.

### **3.3 A securities settlement facility should regularly review the material risks it bears from and poses to other entities (such as other financial market infrastructures, settlement banks, liquidity providers, and service providers) as a result of interdependencies, and develop appropriate risk-management tools to address these risks.**

Austraclear reviews the material risks that it bears from and poses to other entities in the context of its ongoing review of enterprise risks (such as the six-monthly update of business unit risk profiles, see Key Consideration 3.1), and its processes for identifying risks associated with new activities. In the case of new products and services, ASX undertakes risk assessments when undertaking an expansion of its activities or in the event of material changes to its business. Risk assessments are built into ASX's project management framework (see Key Considerations 15.1, 17.4).

For instance, ASX has identified potential risks to its operational activities arising from participants outsourcing their back-office processing offshore. Austraclear has also identified interdependencies with service providers, notably Clearstream Banking S.A. (Clearstream) for key components of the ASX Collateral service. Austraclear's response to these interdependencies is outlined in Key Consideration 17.4.

Interdependencies with ASX Clear and ASX Clear (Futures) for the settlement of margin and other payment obligations are managed within the context of ASX Group's broader risk management framework (see Principle 20).

**3.4 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**

Austraclear has developed a basic recovery plan that identifies scenarios that could threaten its ongoing provision of critical settlement services and sets out how it would respond to such scenarios on the basis of its existing powers under its Regulations and Procedures. The recovery plan sets out the likely sequence of actions that ASX would take under each identified recovery scenario, and analyses the advantages and disadvantages of tools available to Austraclear to respond to such scenarios.

Austraclear has commenced work to develop a more comprehensive recovery plan in line with forthcoming CPSS-IOSCO guidance on recovery planning, expected to be published in late 2014. As part of this process, ASX will consider whether there is a need for enhancements to the Austraclear Regulations to address non default-related losses in light of the forthcoming guidance.

## **Principle 4: Credit risk**

**A securities settlement facility should effectively measure, monitor and manage its credit exposures to participants and those arising from its payment, clearing and 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. In addition, a 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 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 central counterparty in extreme but plausible market conditions. All other 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 to the central counterparty in extreme but plausible market conditions.**

***Rating: Not applicable***

Austraclear does not extend credit to participants or provide a settlement guarantee. Accordingly, Austraclear does not assume credit risk as principal. Austraclear's use of a DvP settlement mechanism ensures that participants do not face credit risks arising from Austraclear's settlement processes (see Principle 12).

The Bank has concluded that Principle 4 does not apply to Austraclear.

**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 payment, clearing, and**

**settlement processes. Credit exposures may arise from current exposures, potential future exposures, or both.**

Not applicable to Austraclear.

- 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.**

Not applicable to Austraclear.

- 4.3 A payment system or 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 Principle 5 on collateral). In the case of a deferred net settlement payment system or deferred net settlement securities settlement facility in which there is no settlement guarantee, but where its participants face credit exposures arising from its payment, clearing and settlement processes, such a financial market infrastructure 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.**

Not applicable to Austraclear.

- 4.4 A 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 5 on collateral and Principle 6 on margin). In addition, a 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 central counterparty in extreme but plausible market conditions. All other 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 central counterparty in extreme but plausible market conditions. In all cases, a central counterparty should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.**

Key Consideration 4.4 is not relevant to securities settlement facilities.

- 4.5 A central counterparty should 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 central counterparty should have clear procedures to report the results of its stress tests to appropriate decision makers at the central counterparty 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 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 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.

Key Consideration 4.5 is not relevant to securities settlement facilities.

- 4.6** In conducting stress testing, a 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.

Key Consideration 4.6 is not relevant to securities settlement facilities.

- 4.7** 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.

Not applicable to Austraclear.

## Principle 5: Collateral

A securities settlement facility that requires collateral to manage its or its participants' credit exposure 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.

### *Rating: Not applicable*

Since Austraclear does not assume credit risk as principal (see Principle 4), it does not collect collateral from participants.

The Bank has concluded that Principle 5 does not apply to Austraclear.

- 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.

Not applicable to Austraclear.

- 5.2** A securities settlement facility should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

Not applicable to Austraclear.



- 5.3 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.**

Not applicable to Austraclear.

- 5.4 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.**

Not applicable to Austraclear.

- 5.5 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.**

Not applicable to Austraclear.

- 5.6 A securities settlement facility should use a collateral management system that is well designed and operationally flexible.**

Not applicable to Austraclear.

## Principle 6: Margin

**A 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.**

**Rating: Not applicable**

Principle 6 is not relevant to securities settlement facilities.

## Principle 7: 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.**

**Rating: Observed**

The Bank's assessment is that Austraclear observes the requirements of Principle 7. Austraclear's arrangements to minimise liquidity risk for its participants are described in further detail under the following Key Considerations.

- 7.1 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.**

Austraclear conducts its securities settlements on a DvP Model 1 basis in real time (see Key Consideration 12.1). By using such a settlement mechanism, Austraclear minimises the liquidity impact of a participant default on other participants. Only the bilateral

counterparties to securities trades struck over the counter with the defaulted participant would face a direct liquidity impact. Such counterparties would be able to manage their liquidity risk within their proprietary frameworks for counterparty risk management.

**7.2 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.**

Since Austraclear does not assume liquidity risk as principal, and its use of DvP Model 1 settlement limits the liquidity impact of a participant default on non-defaulting participants, there are no relevant settlement and funding flows for Austraclear to measure and monitor.

**7.3 A payment system or securities settlement facility, including one employing a deferred net settlement mechanism 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.**

Since Austraclear does not assume liquidity risk as principal it does not need to maintain liquid resources to cover payment obligations.

**7.4 A 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 central counterparty in extreme but plausible market conditions. In addition, a 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 central counterparty in extreme but plausible market conditions.**

Key Consideration 7.4 is not relevant to securities settlement facilities.

**7.5 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.**

Since Austraclear does not assume liquidity risk as principal it does not maintain liquid resources to cover payment obligations in stressed scenarios (see Key Consideration 7.3).

- 7.6 A securities settlement facility may supplement its qualifying liquid resources with other forms of liquid resources. If the securities settlement facility 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 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 a part of its liquidity plan.**

Since Austraclear does not assume liquidity risk as principal it does not maintain liquid resources to cover payment obligations in stressed scenarios (see Key Consideration 7.3).

- 7.7 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.**

Since Austraclear does not assume liquidity risk as principal it does not maintain liquid resources to cover payment obligations in stressed scenarios (see Key Consideration 7.3).

- 7.8 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.**

Austraclear does not assume liquidity risk as principal.

- 7.9 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 settlement banks, nostro agents, custodian banks, liquidity providers and linked financial market infrastructures), 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.**

Since Austraclear does not assume liquidity risk as principal it does not maintain liquid resources to cover payment obligations in stressed scenarios (see Key Consideration 7.3).

- 7.10 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.**

Since Austraclear does not assume liquidity risk as principal, it does not need rules and procedures to address a liquidity shortfall.

## Principle 8: 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.**

### ***Rating: Observed***

The Bank's assessment is that Austraclear observes the requirements of Principle 8. Austraclear's arrangements for ensuring finality of settlements are described in further detail under the following Key Considerations.

- 8.1 A securities settlement facility's rules and procedures should clearly define the point at which settlement is final.**

The point at which settlement is final is defined in the Austraclear Regulations. In the case of transactions involving the transfer of a security, settlement is final when Austraclear has made the appropriate amendments to the security records of the participants involved in the transaction. In the case of transactions involving an AUD cash payment, the cash element of the transaction is settled and may not be unwound when a message is received from RITS that the cash transfer has been made. Upon receipt of the RITS confirmation, Austraclear will update the cash record of the participant. The cash record is a record of the day's flow of debits and credits against each participant's nominated account that allows participants to limit the amount of their funds made available for settlement of transactions.<sup>4</sup>

For foreign currency cash payments, the transaction is settled and may not be unwound once Austraclear has received settlement instructions from the paying participant that satisfy cash record limit checks with its participating bank.

---

<sup>4</sup> The cash record starts at zero at the beginning of the day and records debit and credit cash movements through the day. A total debit limit may be set on the cash record by the participant. When a settlement instruction has been matched, the cash leg of each transaction is tested against the debit limit. If the debit limit is not exceeded, the transaction will be sent to RITS for settlement; otherwise, the transaction will remain in a pending state until sufficient funds are available (i.e. through another transaction that delivers cash or through the participant increasing the limit).

The finality of Austraclear's settlement process is ensured by its approval under Part 2 of the PSNA. In addition, the payments between participants that are 'Participating Banks' are protected by virtue of the approval of RITS as an RTGS system under Part 2 of the PSNA. With this approval, a payment executed in RITS at any time on the day on which a RITS participant enters external administration has the same standing as if the participant had gone into external administration on the next day. Accordingly, in the event of insolvency all transactions settled on the day of the insolvency are irrevocable and cannot be unwound.

Since the protection of the PSNA covers any exchange of assets, it extends to delivery-versus-delivery (DvD) settlement of substitutions generated by ASX Collateral. The point of finality in the case of collateral substitutions is identical to other obligations settled in Austraclear.

**8.2 A 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 large-value payment system or securities settlement facility should consider adopting RTGS or multiple-batch processing during the settlement day.**

Settlement of securities transactions in Austraclear occurs on a DvP (or equivalent simultaneous exchange of assets) Model 1 basis. This involves the simultaneous exchange of assets (cash and securities) between the buyer and seller on an item-by-item basis in real time. Austraclear additionally provides for one-way cash transfers between participants, which are also settled on an item-by-item basis. Although settlements occur in real time, transactions may be held pending during the settlement day (the value date) due to insufficient funds or securities. However, all settlements must occur by the end of the settlement day. Any instructions not settled at the end of the day are automatically moved to a 'failed' status and removed from Austraclear. To the extent that participants to a 'failed' transaction intend to complete settlement, these transactions must be resubmitted to Austraclear. 'Failed' transactions are not automatically restored on the following day. Austraclear's Regulations establish the basis for settlement of transactions entered into the system.

**8.3 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.**

The cut-off times for cancelling payment or transfer instructions are in line with the daily Austraclear cycle. Some cut-off times vary according to whether participants are engaged in evening settlement operations in RITS. Key cut-off times are:

- 1.00 pm for automated re-generation of corporate action instructions (e.g. maturity and coupon payments to bond holders) if amendments are required. However, manual corrections can be processed after this time.
- 4.28 pm for the cancellation of DvP and cash transactions by participants that do not engage in evening operations.
- 6.32 pm AEST (8.32 pm AEDT) for the cancellation of transactions by participants engaging in evening operations.

No transaction can be cancelled once it is at 'payment pending' status in Austraclear, which occurs following matching of instructions from both participants involved in the transaction or, in the case of foreign currency payments, once the transaction has passed cash record limit checks. In all cases, the above deadlines can be extended at the discretion of Austraclear, with

extension of the last two deadlines requiring the Bank's approval due to the implications for RITS.

## Principle 9: 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.**

### ***Rating: Observed***

The Bank's assessment is that Austraclear observes the requirements of Principle 9. Austraclear's money settlement arrangements are discussed in further detail under the following Key Considerations.

The description of money settlement arrangements in this Principle draws a distinction between 'money settlement agents' – the entities whose assets are used to settle the ultimate payment obligation – and 'settlement banks', which maintain accounts with the money settlement agent to settle their own obligations or those of other participants.

#### **9.1 A securities settlement facility should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.**

Austraclear's AUD money settlements are all settled in central bank money. Payment obligations in Austraclear are settled on an RTGS basis across ESAs at the Bank, via RITS.

This includes money settlements initiated by ASX Collateral; while it is expected that most collateral substitutions will involve the exchange of one security for another on a DvD basis, cash may be used as a last resort to effect collateral substitution.

#### **9.2 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.**

During 2013/14, all money settlements in Austraclear were effected using central bank money.

In July 2014 Austraclear began offering a foreign currency settlement service, initially supporting the settlement of payments in RMB. Settlement of these payment transactions is effected in commercial bank money across the books of the Bank of China (Sydney branch).

#### **9.3 If a securities settlement facility settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, a securities settlement facility should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. A securities settlement facility should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.**

Settlement is in central bank funds. Since not all Austraclear participants are eligible to hold an ESA, Austraclear rules provide for those participants to nominate a Participating Bank (an ESA holder that agrees to act on behalf of a participant as settlement agent). A Participating Bank in Austraclear must be approved by the Australian Prudential Regulation Authority

(APRA) as an authorised deposit-taking institution (ADI) for the purpose of carrying out banking business within Australia, and be a member of RITS with an ESA. Participating Banks must also satisfy Austraclear's general participation requirements, which cover matters such as operational capacity, financial standing, and business continuity arrangements (see Principle 18).

Austraclear is not a party to arrangements between settlement participants and Participating Banks (which may also be Austraclear participants) and is not directly exposed to credit or liquidity risk. Under Austraclear Regulations, Participating Banks must meet the AUD money settlement obligations of any participant that they represent in central bank money. Participating Banks do not receive title to any securities due from settlement. Title is delivered to the participant upon settlement in central bank money. Credit exposures, if any, between participants and Participating Banks are managed bilaterally on the same basis as any transactional banking arrangement.

Austraclear is similarly not directly exposed to credit or liquidity risks from Bank of China in respect of its new settlement service for RMB payments. To act as a foreign currency settlement bank, a bank must be licensed by APRA. In considering a bank's application to be a foreign currency settlement bank, Austraclear considers factors such as the bank's creditworthiness, operational reliability and capacity, business continuity management and business integrity and operations. Business continuity requirements are set out in the Austraclear Regulations.

**9.4 If a securities settlement facility conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.**

Austraclear does not conduct money settlements on its own books.

**9.5 A securities settlement facility's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement 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 securities settlement facility and its participants to manage credit and liquidity risks.**

Austraclear does not use commercial bank money settlement agents for its AUD money settlement activities. Participants' arrangements with Participating Banks to access central bank money settlement are conducted under legal agreements between the parties involved; Austraclear is not a party to these agreements.

Austraclear's legal agreement with Bank of China acknowledges that the record of RMB transfers in Austraclear provides participants with a claim on Bank of China, notwithstanding that participants' accounts at Bank of China are updated only at the end of day. The transfer of these claims are final once participants' RMB cash records in Austraclear have been updated.

## **Principle 10: Physical deliveries**

**A securities settlement facility 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.**

**Rating: Not applicable**

Austraclear does not settle obligations requiring physical delivery.

The Bank has concluded that Principle 10 does not apply to Austraclear.

**10.1 A securities settlement facility's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.**

Not applicable to Austraclear.

**10.2 A securities settlement facility should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.**

Not applicable to Austraclear.

## **Principle 11: Central securities depositories**

**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 central securities depository should maintain securities in an immobilised or dematerialised form for their transfer by book entry.**

**Rating: Observed**

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 11. Austraclear's arrangements for its central securities depository activities are described in further detail under the following Key Considerations.

**11.1 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.**

Austraclear employs a range of controls to ensure the integrity of securities it holds. It maintains dual redundancy and a synchronous data update model which ensures that securities holding data are consistent across primary and backup data centres (see Principle 17). Austraclear produces a daily report that reconciles opening and closing balances of holdings to transactions. This report is used to identify if a holding has not been accurately updated.

Annual audits of Austraclear's system controls are conducted by an external auditor and the resulting report is published on the ASX website. These audits assess controls over transaction processing, as well as change management, security protocols, data system operations and disaster recovery planning. The auditor's opinion is provided under the Australian Government Auditing and Standards Board standard ASAE 3402 – Assurance Report on Controls at a Service Organisation. ASX Internal Audit performs an additional risk-based audit of key Austraclear functions on a rolling three-year cycle.

Austraclear's Regulations identify title for three different classes of securities: dematerialised securities; non-paper securities and Euroentitlements; and paper securities.

- Dematerialised securities are electronic securities that are registered in the Austraclear system rather than externally. They include electronic certificates of deposit, electronic



promissory notes and electronic bank-accepted bills of exchange. A dematerialised security is held by a participant as a 'chose in action'. This legal structure imposes rights and obligations that replicate the rights and obligations of a negotiable instrument.

- Non-paper securities and Euroentitlements are electronic securities that are not registered within the Austraclear system. Non-paper securities include Commonwealth Government securities (CGS), registrable state and semi-government securities, and corporate debt. Euroentitlements are claims to investment-grade AUD-denominated European securities that are deemed acceptable by Austraclear and are deposited in an account that Austraclear maintains at Clearstream. The entitlements remain within Austraclear and transfer of title occurs across these accounts, rather than offshore. In the case of non-paper securities and Euroentitlements, Austraclear holds title for the participant as nominee, while the participant retains beneficial title.
- Paper securities are negotiable instruments and include some certificates of deposit, promissory notes and bills of exchange. Austraclear holds these securities for the participant as bailee. The participant retains legal and beneficial title.

The Austraclear Rules and Procedures provide the legal and operational basis for the transfer of title or interests between participants, including the timing of transfers and the role of pledges (encumbrances). Securities pledged in Austraclear require both the pledgor and pledgee to match a pledge request within the system. This places a lock on those securities until the pledgee accepts a request from the pledgor to release the lock.

Under the standard Austraclear account structure, participants can pledge securities to collateralise an exposure created outside the system without the transfer of title, or to exchange securities under repurchase agreements with the transfer of title. These securities may then be used by the collateral receiver without encumbrance (as long as the collateral giver has agreed that they may be re-used, which is standard practice).

The new account structure introduced in July 2013 to support the CCMS includes new Collateral Accounts to hold securities that have been given as collateral by way of outright transfer (Transferred Collateral Accounts) or security interest (Secured Collateral Accounts). These new accounts are used only by users of the CCMS (who must be Full Participants) and are controlled by the Collateral Manager as their agent. A collateral receiver may re-use securities held by it in a Transferred Collateral Account (unless re-use has been restricted by agreement between the collateral giver and collateral receiver), but only within the CCMS and through the Collateral Manager as its agent. The collateral receiver may also instruct the Collateral Manager to transfer the securities to another account for sale or repo outside of the Collateral Management System, but only on condition that equivalent replacement securities are transferred into the Collateral Account.

Settlement instructions for the CCMS are generated by the optimisation service operated by Clearstream based on exposure details provided by customers. The settlement instructions are given to Austraclear by the Collateral Manager who is responsible for account and collateral management on behalf of its customers.

The transfer of title to securities in the Austraclear system is effected by electronic book entry. Transfers of dematerialised securities are transfers of contractual rights within the Austraclear system. Non-paper securities are transferred through the passing of beneficial title from the seller to the buyer. Paper securities are transferred through updates to

participants' security records. Austraclear also uses 'allonges' which maintain the negotiability of paper securities. Austraclear retains legal title in the relevant registry. Settlement occurs via a DvP process in real time. The Austraclear Regulations and Procedures also provide for the transfer of securities free-of-payment, where required.

In the event of Austraclear's insolvency, the rules and arrangements for title within Austraclear provide assurance that participants' securities would be immune from claims by Austraclear's creditors. Austraclear is not counterparty to any transactions settled in its system.

**11.2 A central securities depository should prohibit overdrafts and debit balances in securities accounts.**

Austraclear does not maintain cash accounts, removing the possibility of overdrafts or the extension of credit by Austraclear. All transactions are settled across the ESAs of Participating Banks.

Any instruction to move securities from a participant's securities account in Austraclear in excess of available securities remains in a 'not ready' status until sufficient securities are received into that account. If the instruction remains outstanding at the end of the day, it will move to a 'failed' status and automatically be removed from Austraclear. This removes the possibility of a debit balance in securities accounts.

**11.3 A central securities depository should maintain securities in an immobilised or dematerialised form for their transfer by book entry. Where appropriate, a central securities depository should provide incentives to immobilise or dematerialise securities.**

The securities maintained in Austraclear are either paper, non-paper or dematerialised (see Key Consideration 11.1). Paper securities are immobilised and held by Austraclear as bailee for the holder.

**11.4 A central securities depository should protect assets against custody risk through appropriate rules and procedures consistent with its legal framework.**

Austraclear's Regulations require that Austraclear provide safe keeping for paper securities, and do all that is in its power to replace the security if it becomes lost, stolen, destroyed or damaged. If Austraclear was liable to a participant due to the loss or destruction of a paper security, its liability could extend to the face value of the security.

Austraclear has identified potential custody risks arising from negligence, misuse of assets, fraud, poor administration, or inadequate recordkeeping. Operational controls to mitigate these risks include segregation of duties, access restrictions and authorisation checks.

Austraclear is covered by the ASX Group general and professional indemnity insurance policies for civil liabilities arising from its central securities depository activities. Where losses are the result of employee wrongdoing or a computer manipulation, Austraclear is covered by the ASX Group comprehensive Crime Policy. The Austraclear Regulations also include specific warranties and indemnities limiting potential liabilities arising from custody risk.

**11.5 A central securities depository should employ a robust system that ensures segregation between the central securities depository's own assets and the securities of its participants and segregation among the securities of participants. Where supported by the legal framework, the 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.**

Austraclear segregates its own assets and securities from those of its participants. Participant holdings are legally and operationally segregated within participant accounts. Participants have the further option to segregate client holdings by adopting sub-accounts. Austraclear does not mandate the segregation of client holdings; however, this may be required by regulatory regimes governing participants.

**11.6 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.**

Austraclear offers paying agent services to issuers of debt securities. This service is governed under a service agreement and documented terms and conditions, which are available on the ASX public website. The service is subject to the same operational risk framework that is applied across all ASX facilities (see Principle 17). Austraclear's liability from this activity is limited under the service agreement. Austraclear does not provide a centralised securities lending facility or act as a principal in securities lending transactions.

## **Principle 12: Exchange-of-value settlement systems**

**If a securities settlement facility settles transactions that involve 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.**

***Rating: Observed***

The Bank's assessment is that Austraclear observes the requirements of Principle 12. Austraclear's arrangements for exchange-of-value settlements are described in further detail under the following Key Considerations.

**12.1 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.**

Austraclear eliminates principal risk by ensuring that the settlement of securities delivery obligations occurs if and only if associated payment obligations are settled. It does so by settling securities transactions on a DvP Model 1 basis. This entails that: there is a simultaneous transfer of cash and securities obligations between the buyer and seller on an item-by-item basis in real time; final settlement occurs if and only if both of the linked transfers are completed successfully; and if one transfer fails, the linked transfer will also be cancelled.

Settlement instructions submitted to Austraclear by ASX Collateral are executed on an individual gross basis (as for securities transactions). In the case of collateral substitutions, the settlement mechanism requires that finality is achieved only when both linked securities deliveries have been successfully completed – that is, settlement occurs on a DvD basis. The system design further provides for the grouping of linked transactions to accommodate chains of substitutions where collateral has been re-used.

While this design protects against principal risk, multiple substitutions in a long re-use chain may have implications for timely completion of transactions at the end of the day. To mitigate this risk, and ensure that the potential for gridlock is no greater than under current non-centralised collateral arrangements, participants engaging in the re-use of collateral may allow cash as collateral of last resort. Substitutions involving the use of cash as collateral of last resort settle on a DvP Model 1 basis, consistent with the settlement of other transactions exchanging securities for cash in Austraclear.

By volume, DvP settlements accounted for around 53 per cent of total settlements during 2013/14, and one-way cash transfers account for around 46 per cent. There were also a small number of DvD settlements related to the ASX Collateral service and free-of-payment securities transfers – each less than 1 per cent of total volumes. By value, DvP settlements predominate, accounting for 79 per cent of total transfers in the year to end June 2014.

## Principle 13: 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.**

### ***Rating: Observed***

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 13. Austraclear's default management arrangements are described in further detail under the following Key Considerations.

#### **13.1 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.**

The default of a participant in Austraclear does not require the SSF to meet obligations on its behalf; nor does it create additional obligations for non-defaulting participants. Steps taken by Austraclear to manage a participant default are therefore largely procedural in nature. Participant defaults may result from insolvency events or a failure to comply with the requirements of the Austraclear Regulations, and are dealt with under Regulations 3.10 to 3.14 and under the ASX Enforcement and Appeals Rulebook. Austraclear maintains an internal checklist setting out actions to be taken by relevant business units within ASX in managing a participant default. The default of an Austraclear participant would be managed by the PIRC. The PIRC is chaired by the GE, Operations, and is made up of senior staff from operational, risk management, compliance and legal units.

In the event that a default involved a user of ASX Collateral, the intent of default rules and procedures would be to preserve contractual default arrangements set out in Principal Agreements. These arrangements entitle the collateral receiver to treat collateral held as owned on an outright basis, and include clauses permitting either counterparty to terminate a future obligation to return collateral or cash where the other counterparty has suffered an event of default.

Upon notification of a default under a Principal Agreement, ASX Collateral would act as the collateral receiver's agent and, upon instructions from the collateral receiver, instruct

Austraclear to transfer collateral held from the receiver's Collateral Account to its Source Account or Austraclear trading account.

Nothing in the arrangements requires ASX Collateral to enquire into the validity of any matters in connection with Principal Agreements, including in relation to actions taken in a default event. Any dispute over actions taken would be a matter for parties to the Principal Agreement. ASX Collateral is not a party to the Principal Agreement and its role as agent is strictly limited. Equally, Austraclear is not party to the Principal Agreement; Austraclear's role in the process would be to act on the instructions of ASX Collateral. Nevertheless, the Austraclear Regulations provide an indemnity to Austraclear against any loss or claim arising from its actions in accordance with instructions from ASX Collateral.

**13.2 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.**

Austraclear's Regulations and Procedures provide for the cancellation or suspension of a participant or Participating Bank that becomes subject to external administration, or where there is a reasonable suspicion that this may occur. A participant or a Participating Bank is also required to notify Austraclear if it becomes subject to external administration or where it reasonably suspects that this may occur. Similar powers and requirements apply to Foreign Currency Settlement Banks from July 2014.

There is no restriction within the Austraclear Regulations and Procedures on a participant changing its Participating Bank, including the case where that Participating Bank is insolvent.

**13.3 A securities settlement facility should publicly disclose key aspects of its default rules and procedures.**

Austraclear's Regulations and Procedures are published on the ASX public website. These include a requirement for a participant to give notice of insolvency or the reasonable possibility of insolvency and the right of Austraclear to suspend or terminate participant status in a default event.

**13.4 A securities settlement facility should involve its participants and other stakeholders in the testing and review of the securities settlement facility's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.**

ASX conducts regular in-house default management 'fire drills' to test default procedures as they would apply to participants across one or more of the ASX CS facilities. These fire drills focus on the more complex scenario of a clearing participant default and only relate to Austraclear in that they involve the declaration of default. Other procedural steps related to a default of an Austraclear participant are not covered, but these are carried out in practice from time to time to a greater degree than for the other ASX facilities that have a narrower participation base (see below). Since neither Austraclear nor its participants is exposed to financial obligations created by the default of a participant in respect of Austraclear transactions (a participant may be impacted by the default of another participant if it has outstanding unsettled bilateral transactions with the defaulting participant, but these exposures would not be generated within Austraclear), the management of a settlement-only participant default situation is generally procedural in nature. Austraclear has on occasion needed to employ its default management procedures, most recently to address the

appointment of an external administrator to a participant in July 2013. Since the participant provided agency settlement services for other Austraclear participants, Austraclear's management of the default included facilitating a transition to alternative arrangements for participants reliant on these agency services for settlement.

## Principle 14: Segregation and portability

**A 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 central counterparty with respect to those positions.**

**Rating: Not applicable**

Principle 14 is not relevant to securities settlement facilities.

## Principle 15: General business risk

**A securities settlement facility should identify, monitor, and manage its general business risk and hold 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.**

**Rating: Broadly observed**

ASIC's and the Bank's assessment is that Austraclear broadly observes the requirements of Principle 15. In order to fully observe Principle 15, Austraclear should:

- carry out plans to enhance its recovery plan in line with forthcoming CPSS-IOSCO guidance, and ensure that the capital it holds under Key Consideration 2 continues to be sufficient to fund the enhanced plan. As Austraclear further develops its recovery plan, it should also review and integrate its recapitalisation processes with its broader recovery planning arrangements.

Austraclear's management of general business risk is described in further detail under the following Key Considerations.

### **15.1 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.**

ASX's approach to business risk is consistent with its overall Enterprise Risk Management Policy and Framework (see Principle 3). Under the framework, formal policies are in place for individual risk categories such as accounting, authorisations, business continuity, technology, fraud control and procurement.

ASX monitors a variety of financial business risks, including market risk, credit risk, liquidity risk and capital risk.

- Group funds (as distinct from collateral lodged by participants) may be exposed to market risk due to changes in market variables such as interest rates, foreign exchange rates and equity prices. Mitigants for market risk include hedging of foreign exchange risk and monitoring of equity price risk, with appropriate capital allocation.

- Credit risk for the Group's general business activities arises in the collection of receivables, which principally comprise fees from market participants, issuers, users of market data and other customers. Mitigants include active collection procedures on trade receivables and 'ageing' of receivable amounts.
- Liquidity risk arises from the Group's time-critical payables, and is mitigated by prudent liquidity management, with forward planning and forecasting of liquidity requirements.
- ASX may be exposed to capital risk if equity in group entities falls below prudent or regulatory minimum levels. ASX manages its capital at a group level, in accordance with an objective of maintaining a prudent level of surplus net tangible equity. Ongoing monitoring of cash flows and capital adequacy is conducted via quarterly meetings of CALCO.

ASX undertakes periodic strategic risk assessments in the context of its overall business plans. Through this process, ASX identifies new strategic business initiatives, such as the projects that delivered the ASX Collateral and over-the-counter (OTC) derivatives clearing services. These are subject to financial analysis, which includes high, low and base case revenue assumptions and forecasts. Impacts on capital are also determined and analysed.

ASX undertakes risk assessments when undertaking an expansion of its activities or in the event of material changes to its business. Risk assessments are built into ASX's project management framework (see Key Consideration 17.4). Under this framework an initial high-level risk indication is defined at the project concept stage. This is followed by a formal project risk assessment covering both project delivery risks and impacts to business activities. ASX typically conducts a series of workshops involving project staff to discuss risks associated with any planned new service. Prior to the approval of a project for launch/production, ASX prepares an operational readiness summary and conducts a final workshop to discuss possible risks associated with initial launch. This includes consideration of potential failure scenarios and workarounds, procedures for escalation of issues, and help desk and key staff availability.

Following launch, the risks of a new activity are captured in risk profiles that are prepared by business unit management every six months. CALCO also monitors actual and forecast capital and liquidity requirements on a quarterly basis, including requirements related to new projects.

**15.2 A securities settlement facility should hold 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 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.**

ASX has set aside \$232 million for operational and business risk across the four ASX Group CS facilities, \$157 million of which has been attributed specifically to operational and business risks across both Austraclear and ASX Settlement. Since ASX has identified constraints to making business risk capital bankruptcy remote within the SSFs, this capital is held at the ASX Group level. Each CS facility has a separate allocation for business risk capital that is explicitly recognised within group-wide capital holdings. These holdings include an additional buffer

against potential losses sustained elsewhere in the group. During 2013/14, ASX made amendments to the ASX Group Support Agreement, placing an obligation on ASX to maintain sufficient capital to support Austraclear's continued operations in the event of general business losses. These amendments support the legal certainty of Austraclear's access to business risk capital as required.

In determining the sufficiency of the \$157 million in operational and business risk capital set aside for Austraclear and ASX Settlement, ASX first calculated risk amounts for the individual SSFs. This was based on a methodology in use at other SSFs, fund managers and custodians that applies a capital charge for operational and business risk to the value of securities held in the facility. The correlation is modelled on a percentage basis, with the percentage of required risk resources declining as the level of assets increases – recognising that a significant part of the risk resources required will represent a fixed cost. ASX's application of this methodology results in a 0.79 basis points charge on around \$1.5 trillion of securities held in each SSF, giving a required value of risk resources of around \$111 million for each of Austraclear and ASX Settlement.

ASX assumes that the two facilities will not both require their full risk funds at the same time. This reflects that the custodial and operational risks that this capital is calibrated to cover are unlikely to result in simultaneous peak losses in both SSFs. ASX has applied a 'square root of the sum of squares' formula to arrive at the figure of \$157 million to cover the operational and business risk exposure of the two settlement facilities. The business risk capital held in respect of the SSFs is sufficient to ensure that, even if one SSF were to utilise its full capital allocation of \$111 million, sufficient funds would be available to fund the other SSF's recovery plan and meet the single largest uninsured business loss event for that facility. In addition, ASX's general capital buffer is sufficient to ensure that it would remain able to provide \$111 million to the second SSF in the event that this was required.

- 15.3 A securities settlement facility should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, a securities settlement facility should hold 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. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.**

Austraclear has developed a plan setting out options for its recovery or wind-down based on its existing Operating Rules, and has commenced work towards enhancing this plan in line with forthcoming CPSS-IOSCO guidance on recovery planning (see Key Consideration 3.4). In calculating the quantum of business risk capital described under Key Consideration 15.2, ASX has sought to ensure access to sufficient liquid net assets to fund operations during the execution of Austraclear's recovery plan, or to cover a minimum of six months of current operating expenses.

- 15.4 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.**

The risk capital for ASX's CS facilities is invested in accordance with the ASX Limited and ASX Operations Pty Limited Investment Mandate. The Investment Mandate specifies investment objectives, responsibilities, approved products and counterparties, and audit and



maintenance of the mandate. Approved products are generally highly rated and liquid products such as: cash deposits; bank bills, negotiable certificates of deposit and floating rate notes issued by APRA-approved ADIs; foreign exchange in specified currencies; CGS; and selected semi-government securities. Limits are applied against counterparty, liquidity and market risks. Liquidity limits are specified for maximum instrument maturity and weighted average maturity.

**15.5 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.**

As noted, ASX Limited manages its operational and business risk capital at the group level. The ASX Limited Board monitors the ongoing capital adequacy of the ASX Group as part of its regular capital planning activities. The Board determines the most appropriate means of raising additional capital when needed, giving due consideration to prevailing market conditions and available alternative financing mechanisms. For example, in June 2013, ASX Limited conducted a capital raising by way of a \$553 million share entitlement offer, with the bulk of the funds being used to increase the business risk capital of the CS facilities and their pooled financial resources to deal with participant default. Recapitalisation processes will be reviewed and integrated with broader recovery planning arrangements as Austraclear further develops its recovery plan in line with forthcoming CPSS-IOSCO guidance.

## **Principle 16: 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.**

***Rating: Observed***

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 16. Austraclear's arrangements for managing custody and investment risks are described in further detail under the following Key Considerations.

**16.1 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.**

Austraclear has funds from retained earnings that are invested in cash or other high-quality liquid assets; it does not use custodians to invest these funds (see Key Consideration 16.4).

ASX Collateral does not create custody risk for Austraclear. While the Collateral Manager has control over new collateral accounts for the purposes of submitting settlement instructions on behalf of service users, title of securities remains at all times with the service users.

Austraclear has custody of participants' securities deposited in the Austraclear system. For details of these custodial arrangements and arrangements to safeguard the integrity of securities held in Austraclear, see Principle 11. Austraclear does not hold other assets of participants.

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

Under the terms of the Austraclear Investment Mandate, funds held by Austraclear must be invested in cash, or bank bills or certificates of deposit issued by APRA-regulated ADIs. As these assets are highly liquid and invested with large Australian banks, Austraclear has prompt access to its assets when required. Austraclear does not use custodians to hold its assets or participants' assets.

**16.3 A securities settlement facility should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.**

Austraclear does not use custodians to hold its assets or the assets provided by participants.

**16.4 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.**

Austraclear is exposed to investment risk on funds from contributions and retained earnings. These funds, currently around \$10 million, are small relative to the total funds held by ASX Limited at the group level to cover general business risk and are invested predominantly in cash. The Investment Mandate for Austraclear funds requires that liquidity be maintained so that it can meet its liabilities in a timely fashion. Investment products are limited to a small set of low risk and highly liquid AUD-denominated products, with large Australian banks as counterparties. Hard limits are set on maximum instrument maturity (180 days) and weighted average maturity (60 days).

## Principle 17: 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.**

***Rating: Observed***

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 17. Austraclear's arrangements for managing operational risks are described in further detail under the following Key Considerations.

**17.1 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.**

ASX's operational risk policies and controls have been developed in accordance with ASX's group-wide Enterprise Risk Management Framework (see Key Consideration 3.1). Under this framework, the ASX Limited Board is responsible for reviewing and overseeing the Group's risk management systems (see Key Consideration 2.6). The Board delegates review of the Enterprise Risk Management Framework to its Audit and Risk Committee. An Enterprise Risk Management Committee, comprising executives from across ASX's departments, is responsible for approving enterprise risk policies and reviewing controls, processes and procedures to identify and manage risks, as well as the formal approval of significant

operational risk policies prepared by individual departments. Under the Enterprise Risk Management Framework, individual departments are also responsible for: identifying business-specific risks; applying controls; maintaining risk management systems; reporting on the effectiveness of risk controls; and implementing enhancements and taking remedial action. A dedicated security team has responsibility for assessing both physical and cyber security risks, and is overseen by a Security Steering Committee comprising of the Chief Information Officer, head of Internal Audit and other senior executives.

#### *Access to resources*

Austraclear has arrangements in place to ensure that it has well-trained and competent personnel operating EXIGO. Staff are provided with relevant policies and guidelines from commencement of employment, with weekly communications thereafter. Staff are evaluated with reference to each defined operational process and broader skills matrices, with training provided for identified areas of weakness. Austraclear has a formal succession planning and management process in place for key staff. ASX has sought to automate routine operational processes and reporting over recent years, freeing up additional staff resources that would otherwise be devoted to these tasks.

To facilitate rapid recovery in the event of an operational disruption, ASX intends to increase the proportion of operational staff based at its secondary operations site (which is also the primary data centre), to around 30 per cent from the current 20 per cent. In case of a disruption to staffing arrangements at the primary site for staff, the secondary operations centre has capacity to house 65 per cent of all operational staff.<sup>5</sup>

#### *Resources shared with a related body*

Within the ASX group structure, most operational resources are provided by ASX Operations Limited, a subsidiary of ASX Limited (see 'ASX Group Structure' in Section 2.3.1), under a contractual Support Agreement. In the event that ASX Operations Limited became subject to external administration, to the extent permissible by law, provisions within the Support Agreement provide for Austraclear and the other clearing and settlement corporate entities to retain the use of operational resources.

#### *Major projects*

Major projects are overseen by the Enterprise Portfolio Steering Committee (EPSC), which is comprised of representatives of the Group Executive. The EPSC is responsible for determining project priorities across the ASX Group and overseeing the quality of project execution. The EPSC is also tasked with ensuring that ASX has sufficient well-qualified personnel to cope with periods in which it is simultaneously undertaking a number of projects, including those resulting in significant changes to business. Project management of major projects is undertaken by the Project Management Office (PMO). For projects affecting core systems (including EXIGO), the PMO rates projects to ensure that they receive appropriate access to resources. Projects incorporate testing processes, which verify that systems or services meet benchmarks set prior to implementation. Testing addresses both technical and operational aspects of projects. The project management process includes engagement with customers and third-party vendors of supporting systems where appropriate, particularly in customer

---

<sup>5</sup> ASX currently maintains three main sites for its operations and data processing: a primary operations site (where the majority of staff are located); a secondary operations site that also operates as the primary data centre; and a backup data centre.

testing. Project plans also include formal checkpoints to ensure all appropriate risk management controls are in place prior to live use of a new or updated system or service.

Over recent years, ASX has undertaken work on close to 60 projects, including major projects such as the OTC derivatives clearing service and enhanced client clearing arrangements in ASX Clear (Futures), the ASX Collateral service and Austraclear's foreign currency settlement service. Work on these projects, often to challenging time frames, in addition to work required by ASX to ensure compliance with the new FSS, has tested the capacity of ASX's existing resources. Targeted deadlines for key projects have nevertheless largely been met. In order to meet increased demand for resources associated with these projects and ongoing business requirements, ASX has taken on new staff, employed consultants and utilised partnerships with service providers.

A key project for Austraclear during 2013/14 has been an initiative to bring EXIGO development support in house. Austraclear has managed the additional resource implications of this 'insourcing' project through the recruitment of additional developers and the secondment of a senior developer from the vendor. Delivery of the project has nevertheless been delayed until January 2015, from an original target date of late 2014, in part due to the diversion of some resources to other projects such as ASX Collateral and the foreign currency settlement service. ASX has taken steps to ensure the availability of EXIGO development support from the current service provider for the additional period.

**17.2 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.**

The roles and responsibilities for addressing operational risk are clearly defined in the CS Boards' Charter, the Audit and Risk Committee Charter, and the Enterprise Risk Management Framework. As described above, risk responsibilities are shared between the ASX Limited Board, the CS Boards, the Audit and Risk Committee, the Enterprise Risk Management Committee and individual departments.

Policies and procedures are the subject of internal and external review. ASX's Internal Audit department routinely monitors compliance with operational policy, reporting to the Audit and Risk Committee on a quarterly basis. Audit findings may prompt a review of policy, which would be conducted in consultation with key stakeholders. Technology-related security policy is considered by external auditors annually.

ASX benchmarks its operational risk policy against relevant international standards. For example:

- ISO 31000 – Risk Management Principles and Guidelines is used to benchmark ASX's overarching framework for operational risk management
- The business continuity framework is benchmarked against the Business Continuity Institute's Good Practice Guidelines 2013, the international standard ISO 22301:2012 Business Continuity Management Systems, and the British standard BS 25999 1:2006.
- The technology risk management framework is benchmarked against the ISO 27001:2005 Information Security Management Systems standard. Cyber security

strategies are further benchmarked against the Australian Signals Directorate's Strategies to Mitigate Targeted Cyber Intrusions.

- The compliance framework is benchmarked to the AS 3806-2006: Compliance Programs.
- The ASX Fraud Control Policy is benchmarked against AS 8001-2008: Fraud and Corruption Control.

In addition, Austraclear's operational risk controls and reliability objectives are designed to meet operational standards set by the Bank as part of its 'Step-in and Service Agreement'. As a feeder system to RITS, and as a systemically important system, Austraclear's system architecture is required under these standards to be equivalently operationally robust to that of RITS.

The risk framework defines a variety of control procedures to support the core operational systems. These include audit logs, dual input checks, management sign-off and processing checklists as the primary preventative controls, supported by reconciliations and management reviews of activity. Austraclear operates a separate test environment for its core system (EXIGO) and has a formal, documented change management process. There are also defined procedures for communicating with participants and vendors details of technology upgrade releases, which include regular notices to participants of upcoming changes.

**17.3 A securities settlement facility should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.**

Availability targets are documented and defined formally for critical services. EXIGO is required under its Step-in and Service Agreement with the Bank to meet a minimum availability target of 99.9 per cent; during 2013/14, EXIGO was available 99.96 per cent of the time, with two incidents causing outages:

- On 13 September 2013, settlement messages in EXIGO were suspended for 42 minutes due to a database conflict. A workaround has been developed for this issue, which will be addressed as part of the EXIGO insourcing project.
- On 7 October 2013, participants were unable to connect to EXIGO for a period of 46 minutes, due to the expiration of a security certificate used for verification. Procedures for updating certificates have now been updated.

System capacity is monitored on an ongoing basis, with monthly reviews of current and projected capacity requirements. The results are reviewed against established guidance for capacity headroom over peak recorded values for all critical systems; that is, to maintain capacity 50 per cent over peak recorded daily volumes, with the ability to increase to 100 per cent over peak within six months. Capacity data are reported monthly to the CEO. Average capacity utilisation of EXIGO during 2013/14 was 22 per cent, while peak utilisation was 35 per cent. Austraclear considers that it has sufficient technical and human resources to operate EXIGO during peak periods, including in the event of operational incidents or system failure.

**17.4 A securities settlement facility should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.**

Austraclear's approach to ensuring scalable capacity adequate to handle increasing stress volumes and to achieve its service level objectives is described under Key Consideration 17.3. As noted above, average capacity utilisation of EXIGO during 2013/14 was 22 per cent, peak utilisation was 35 per cent, while EXIGO was available 99.96 per cent of the time over this period.

**17.5 A securities settlement facility should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.**

Information security policy is implemented using a risk-based decision process, based on ISO 31000, relevant federal and state legislation, and other best-practice standards. The goal of ASX's information strategy is to create a strong and reliable security environment that meets business and functional requirements for customers and employees while balancing risk to the organisation, the cost of controls, and the richness and flexibility of services. ASX's information security policy applies to all employees, consultants, vendors and contractors of ASX. It also applies to all facilities, equipment and services managed by or on behalf of ASX, including off-site data storage, computing and telecommunications equipment. The policy is reviewed annually or when material or organisational changes are made. The last review was in March 2014.

Information security policy is tested at a number of levels. This includes penetration testing against the ASX perimeter and vulnerability testing within the perimeter. Austraclear performs EXIGO security testing on a quarterly basis. ASX operates a suite of controls designed to prevent and detect cyber attacks on its systems, such as denial of service or malware threats. These include steps to monitor suspicious internet traffic, and the maintenance of spare capacity to manage legitimate or malicious surges in internet traffic, as well as steps to regulate access to ASX systems (described below).

Physical access is controlled at both an enterprise and departmental level. The key systems supporting ASX's clearing and settlement processes are operated within a secure building. Settlement operations are separated from general office areas with permitted access determined at a senior manager level and records of access maintained. Physical security arrangements for the primary and backup data centres are broadly equivalent.

User access for the key systems is restricted to prevent inappropriate or unauthorised access to application software, operating systems and underlying data. User activities are uniquely identifiable and can be tracked via audit trail reports. The level of access is authorised by the system owner with users granted the minimum level of access to systems necessary to perform their roles effectively. External access to ASX systems must pass through multiple layers of firewalls and intrusion prevention, and individual networks are segregated.

Application testing is carried out in test environments. Testing reports are documented, with identified problems escalated to management and tracked through to remediation. Similarly, any significant technology-based operational incidents are reported to senior management and issues are tracked through to resolution via regular updates to management.

**17.6 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 (IT) systems can resume operations within two hours following disruptive events. The 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.**

#### *Business continuity arrangements*

Austraclear maintains extensive contingency plans detailing the appropriate operational response to a CS facility disruption, including coverage of the various lines of authority, means of communication, and failover procedures. These plans are updated periodically. Austraclear policy requires that failover to the backup data centre should occur within two hours. Plans for recovery of key systems apply to both physical and cyber threats to business continuity.

Austraclear employs a variety of technologies to ensure a high degree of redundancy in its systems – both across sites and within a single site. ASX maintains both a primary and a backup data centre, with broadly equivalent operational requirements. Key plant and equipment at the primary data centre are designed to the Uptime Institute Tier 3 standard of concurrent maintainability.<sup>6</sup> The main computer network is connected via point-to-point optical fibre, which ASX operates with its own technology, thereby reducing the potential for outages due to operational problems with the telecommunications provider. All core systems employ multiple servers with spare capacity. Front-end servers handling communications with participants are configured to provide automatic failover across sites. Failover of the more critical data servers is targeted to take place within two hours, but would generally be expected to occur within an hour, under the control of management.

Disruption to participants in such circumstances would be mitigated by the high degree of redundancy in front-end system components. In most circumstances, these would be expected to maintain communications with participants' systems and queue transactions until the data servers were reactivated. The integrity of transactions would be supported by: queuing messages until they could be processed; storing all transactions in the database with unique identifiers, thereby preventing the loss or duplication of transactions; and synchronising database records between the primary and backup data centres. Furthermore, in the event that a significant part of a system or an operational site failed, Austraclear has contingency arrangements to activate an additional tier of 'cold' redundancy arrangements (either by converting test systems into production systems or rebuilding systems from readily available hardware) within 24 hours to meet the contingency of any further service interruption. Austraclear has clearly defined procedures for crisis and event management. These procedures cover incident notification, emergency response (including building evacuation), incident response (including overall incident assessment and monitoring), and incident management testing. Since May 2014 these include the use of Twitter to advise stakeholders of market-wide operational or technical incidents. ASX maintains a major incident management team that includes senior representatives of the core business activities, as well as facilities management, business continuity, and media and communications. The procedures identify responsibilities, including for internal

---

<sup>6</sup> The Uptime Institute is an IT consulting organisation that has developed a widely adopted classification system for the level of redundancy arrangements in data centres. 'Tier 3' is the second highest standard of redundancy, indicating that a data centre has redundant components, multiple independent power and cooling systems, and a high degree of availability.

communication and external communication to emergency services, the market, industry and media.

Austraclear regularly tests its business continuity arrangements. Dual site operational teams across the primary and secondary operations sites effectively test backup operational processes on a continuous basis. Live technology tests, where settlement services are provided in real time from the backup data centre, are conducted on a two-year cycle. Test results are formally documented and reported to ASX senior management and are also made available to internal and external auditors. The use of live tests ensures that participant connectivity to the backup data centre is also tested. ASX's business continuity framework is audited externally every three to five years; the most recent audit, conducted in late 2012, found that ASX's business continuity standards were broadly consistent with widely recognised global standards and did not identify any major areas of concern. Under the terms of Austraclear's Step-in and Service Agreement with the Bank, Austraclear is also required to take part in annual connectivity tests between the Austraclear and RITS systems.

#### *Participant continuity arrangements*

Recognising that effective continuity of operations may depend on the capacity of participants to recover from an operational disruption, business continuity requirements for participants are set out in the Austraclear Regulations and Procedures, supplemented by additional guidance issued by ASX on 1 July 2014. These require participants to maintain adequate business continuity arrangements that are appropriate to the nature and size of their business as a participant. The Regulations specify that participants must have arrangements that allow for the recovery of usual operations. It is Austraclear's expectation (set out in guidance) that this would be within two hours, and no more than four hours, following a contingency event for large participants. The targeted recovery time for smaller participants is four hours (and no more than six). Where a participant also acts as a foreign currency settlement bank, it is subject to additional operational resilience requirements reflecting its critical role in the operation of the foreign currency settlement service. These arrangements are reviewed as part of the participant admissions process. If a participant fails to maintain business continuity arrangements consistent with these recovery targets, it may become subject to sanctions or restrictions on its activities. Participants are also subject to spot checks of their ongoing compliance with operational requirements. Spot checks may be based on topical themes, in some cases arising from observations of general business developments, and in other cases motivated by a participant that has been experiencing operational problems. These spot checks examine the participant's governance and processes for resilience and business continuity. If a participant fails to implement any recommendations arising from a check, ASX may impose sanctions.

The Regulations and Procedures also require more broadly that participants have facilities, procedures and personnel that are adequate to meet technical and performance requirements. ASX's preferred approach to dealing with operational issues is to work collaboratively with the participant to educate them on their obligations. If the matter is serious, ASX may require that the participant address the weakness as a matter of priority. ASX may also impose conditions on participation, or require that the participant appoint an independent expert to assist with the remediation task.

Participants are involved in the contingency testing of Austraclear's systems, as this testing is conducted in a live environment. ASX conducts comprehensive business continuity testing of key systems at least every two years, with participants being notified of the start and



completion of testing. Participants are also involved in testing of major system changes or in advance of the introduction of a new system. Austraclear conducts regular connectivity tests and maintains an external testing environment for system changes.

In addition to operational reliability requirements that apply to ASX Collateral as a Special Purpose Participant of Austraclear, ASX Operations Pty Limited conducts contingency testing of ASX Collateral as a critical ASX system. As part of this testing, ASX applies some of the contingency scenarios defined in its Service Level Agreement with Clearstream.

To further strengthen their influence over ASX Collateral (and, by extension, Clearstream), or any future Collateral Manager, ASIC and the Bank have worked to develop additional operational resilience requirements for Special Purpose Participants of Austraclear that provide collateral management services. These requirements, which are based on the operational standards imposed on Austraclear by the Bank as part of its Step-in and Service Agreement, include conditions on operational hours, system availability and capacity, outage reporting, business continuity arrangements, and IT governance and security.

**17.7 A securities settlement facility should identify, monitor, and manage the risks that key participants, other financial market infrastructures, and service and utility providers might pose to its operations. In addition, a securities settlement facility should identify, monitor, and manage the risks its operations might pose to other financial market infrastructures.**

*Interdependencies with participants and other FMIs*

ASX identifies and monitors potential dependencies on participants in a number of ways: by holding regular discussions with participants on risk management processes (see Key Consideration 3.1); as part of its assessments of project-related risks (see Key Consideration 15.1); and through its general monitoring of risks under its risk management framework (see Key Consideration 3.1).

For Austraclear, ASX has identified risks relating to its operational activities arising from participants outsourcing their back-office processing offshore. Participants' outsourcing of back-office processes and technology to overseas domiciled hubs or third-party vendors may complicate incident management due to differences in time zones and languages, and in some cases a lack of familiarity with local market practices and conventions. Such factors, if inadequately mitigated, could increase operational risk. ASX is examining options to mitigate these risks. As part of this, ASX Compliance has carried out a spot review of participants' outsourcing arrangements, benchmarking participants against a number of standards, including APRA's outsourcing prudential standard CPS 231. As a follow-up to the review, ASX is developing new guidance on participant outsourcing and has conducted site visits to selected overseas outsourcing providers.

*Dependencies on service and utility providers*

ASX has a formal policy that sets out the process for entering into, maintaining and exiting key outsourcing arrangements. If a key service is to be provided by an external service provider, ASX first conducts a tender process in which proposals from potential vendors are assessed against relevant criteria. Arrangements have been implemented under which ASX would consult with the Bank before entering into new agreements with third parties for critical services. ASX also provides the Bank with a list of critical outsourcing arrangements on an annual basis. Issues relating to outsourcing or service provision are escalated as

appropriate to executive management via the ASX Technology Vendor Management Group and the relevant operational support area.

ASX assesses the operational performance of its service providers on an ongoing basis against its own operational policies, to ensure that service providers meet the resilience, security and operational performance requirements of relevant domestic and international standards. ASX maintains current information on its service providers' operations and processes through ongoing liaison, and in turn provides relevant updates to service providers regarding ASX operations. Service providers are also assessed through software regression testing when there is a major system upgrade.<sup>7</sup> Contractual arrangements with critical service providers require the approval of Austraclear before the service provider can itself outsource material elements of its service. Austraclear's dependencies on service providers include:

- *SWIFT*. Participants are able to use the SWIFT messaging service to submit settlement instructions to Austraclear. This makes Austraclear reliant on interactions with SWIFT for the processing of transactions from participants using this service. In the event of a SWIFT failure, Austraclear would revert to manual processing of SWIFT payments.
- *RITS and foreign currency settlement banks*. As the cash leg of all AUD DvP and payment only transactions occur over RITS, transactions, the failure of RITS would potentially prevent settlement in EXIGO. However, ASX has prepared business plans that contemplate EXIGO continuing to operate independently. Steps taken to address interdependencies with Foreign Currency Settlement Banks acting as commercial bank money settlement agents for foreign currency payments are described under Key Consideration 9.3; operational arrangements for foreign currency settlements are designed not to affect the settlement of Australian dollar transactions.
- *ASX Collateral/Clearstream*. Austraclear also has interdependencies with ASX Collateral. Particularly since access to securities held in collateral accounts in Austraclear would be impaired in the event of an operational disruption to ASX Collateral services, ASX Collateral is required to deliver an equivalent standard of resilience to that of Austraclear. This extends to the outsourced services provided by Clearstream. In terms of architecture, system capacity, recovery time, and availability targets, ASX Collateral and Clearstream are designed to operate to a similar standard to that of Austraclear. In addition, the Service Level Agreement between ASX Operations Pty Limited and Clearstream requires that Clearstream provide 'round the clock' operational and technical support via its network of operational centres, with the support during Australian operational hours provided primarily by Clearstream's Singapore centre.
- *Utilities and service providers*. All other Austraclear operational functions are performed within ASX. However, external suppliers are used for utilities, hardware maintenance, operating system and product maintenance and support, and certain security-related specialist independent services.

ASX has put in place a number of mitigants to address the risks associated with dependencies on utilities and service providers.

---

<sup>7</sup> When a component of software is updated, 'regression testing' aims to perform checks on the full software to verify that the operation of other software components has not been inadvertently affected by the update.

- Primary and backup data centres are connected to different electricity grids and telecommunication exchanges.
- Each data centre has backup power generators with capacity to run the site at full load for 72 hours.
- All external communications links to data centres are via dual geographically separated links.
- ASX conducts regular testing of backup arrangements. Major systems are tested on a two-year cycle. Participants are notified of business continuity tests in advance through ASX notices.
- ASX also performs a periodic assessment of suppliers, including consideration of contingency arrangements should externally provided services not be available (such as the use of alternative suppliers) as well as incident escalation procedures and contacts.
- *IT licensing and support.* Austraclear has a key dependence on a third-party vendor for IT licensing, support and maintenance services for its core EXIGO system. During 2011/12, Austraclear commenced an insourcing project to take over EXIGO's third-level operational and software support (requiring expert knowledge of the core system) from the third-party vendor. This project has the potential to significantly reduce operational risk by giving Austraclear control over future development of the system in terms of both the nature and timing of future enhancements. The project will improve operational risk by significantly simplifying the system through the removal of unused components. It should also improve the timeliness of Austraclear's responses to operational incidents, given the current reliance on 24-hour support across different time zones for highly technical matters. ASX has recruited developers for this project and a senior developer from the third-party vendor has been seconded to Sydney during the development phase. As a contingency, ASX also has the option to extend existing support arrangements for as long as required; this has been exercised to cover delays caused by the temporary diversion of resources to other projects. The project is now expected to be completed in early 2015 (see Key Consideration 17.4).

ASX has developed a set of standard clauses for inclusion in contracts with third-party service providers of critical services to Austraclear. Similar clauses are also included in the Support Agreement between Austraclear and ASX Operations Pty Ltd, which provides all internal operational services for the facilities. The clauses seek to ensure that the agreements meet the resilience, security and operational performance requirements of the FSS (which align with the Principles). ASX applies these clauses to all new agreements with service providers, and has incorporated them into all of its key existing service agreements.

ASX's standard clauses for service providers require the provider to grant reasonable access to the Bank in respect of information relating to its operation of a critical function provided to Austraclear. In the event that the Bank concluded that the terms of the service provider agreement did not meet FSS requirements, the clauses require the service provider to negotiate acceptable new terms with ASX in good faith. These clauses require that providers give the Bank notice of any intention to terminate the agreement as a consequence of Austraclear's failure to pay fees, or in the event of the insolvency of Austraclear or any other

ASX entity. This is intended to give the Bank an opportunity to take action to remedy the breach or otherwise ensure continued service provision.

The resilience, security and operational performance of SWIFT, which Austraclear relies upon for messaging, is primarily overseen by the SWIFT Oversight Group (OG), comprising the G10 central banks and chaired by the National Bank of Belgium (NBB). In 2012, the NBB established the SWIFT Oversight Forum (SOF) to include 12 additional central banks, including the Bank, in the oversight process. Through its membership of the SOF, the Bank is able to access information relevant to SWIFT oversight. To support its oversight activities, the OG has set proprietary minimum standards – the High-level Expectations (HLEs) – against which SWIFT is assessed. In its capacity as a member of the SOF, the Bank receives SWIFT’s annual self-assessment against the HLEs.

Austraclear’s arrangements to ensure continuity of operations in the event of a crisis will be shaped by the proposed introduction into Australian law of a special resolution regime for FMIs. This was foreshadowed in consultations undertaken by the Council of Financial Regulators and Treasury in 2011 and 2012. Austraclear will need to ensure that its arrangements to support continuity of operations in a crisis are appropriately adapted to the proposed FMI resolution regime once finalised.

CPSS and IOSCO have developed a draft Assessment Methodology for the oversight expectations applicable to critical service providers such as SWIFT, based on the HLEs.<sup>8</sup> Once finalised, this Assessment Methodology will provide a framework for considering how to apply the oversight expectations for critical service providers set out in Annex F of the PFMIs.

#### *ASX Collateral*

Given the interdependencies between Austraclear and ASX Collateral, it is important that ASX Collateral is held to equivalent standards of operational robustness. ASX Collateral employs the same risk management framework for operational risk and operational procedures as those adopted for the Austraclear EXIGO system. This includes a service availability target of 99.9 per cent, and a minimum capacity headroom target of 50 per cent of total capacity. ASX Collateral’s business continuity arrangements are also consistent with those for the Austraclear EXIGO system and are reviewed alongside Austraclear’s own business continuity arrangements. The CCMS is replicated at the backup data centre, with failover to occur within one to two hours, depending on the nature of the contingency event. A high degree of redundancy is built into the CCMS – both across the primary and backup data centres and within each centre. In the case of a significant outage of the CCMS, critical collateral transfers may be conducted as ‘Austraclear assisted transactions’, consistent with existing Austraclear functionality.

ASX Collateral has access to other ASX Group personnel as required to carry out its operations under the ASX Group Support Agreement with ASX Operations Pty Limited. This agreement aims to allow for access to resources in the event of external administration of ASX Operations Pty Limited – to the extent permissible by law.

Resilience requirements imposed on ASX Collateral apply equally to ASX Collateral’s outsourced arrangements with Clearstream. Clearstream’s reliability targets for its CmaX system are broadly equivalent to those of Austraclear. Specifically, they require 99.8 per cent

---

<sup>8</sup> The draft Assessment Methodology is available at <<http://www.bis.org/publ/cpss115.htm>>.

availability and capacity utilisation of no more than 20 per cent. Clearstream can scale its service to cover 15 times the current average production load by the straightforward upgrade of existing hardware, and additional capacity can be obtained by adding servers and tuning software. Clearstream's resilience standards are broadly equivalent to those of Austraclear, including the use of geographically separated underground data centres with security huts, managed firewalls, anti-virus and anti-malware protection for email, and data encryption.

Clearstream is subject to oversight under several regimes. In particular, the Central Bank of Luxembourg performs periodic assessments of Clearstream against applicable standards. These assessments evaluate Clearstream's operational risk management framework for its collateral management service (i.e. not specifically the ASX iteration). Additional assessments, from the point of view of user requirements, are carried out by the Eurosystem on a near-annual basis. None of these various assessments have identified significant issues with Clearstream's operation of its services. Clearstream is also subject to periodic examination by international assessors.

Rights of access for the Bank to ASX Collateral are provided by overlapping requirements established under Australian Financial Services Licence conditions imposed on ASX Collateral, intragroup contractual arrangements, and additional requirements on Special Purpose Austraclear Participants that are Collateral Managers. Rights of access to the Bank in respect of CCMS services provided by Clearstream are provided by the Master Framework Agreement between ASX Operations Pty Limited and Clearstream.

#### *Disclosure*

The nature and scope of Austraclear's dependencies on critical service providers are disclosed to participants through: Regulations; Guidance Notes; Notices and Bulletins; technical documentation available on the ASX participant website; more general information available on the ASX public website; and in one-on-one meetings with participants, both during the induction process for new participants and on an ongoing basis.

#### *Operational Support*

Austraclear provides telephone and email support to participants via a helpdesk, which operates from 7am to 7:30pm (9:30pm during daylight saving time).

## **Principle 18: 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.**

### ***Rating: Observed***

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 18. Austraclear's access and participation requirements are described in further detail under the following Key Considerations.

**18.1 A securities settlement facility should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other financial market infrastructures, based on reasonable risk-related participation requirements.**

Austraclear has objective and transparent participation requirements, which are detailed in a number of policies and standards under the Settlement Risk Policy Framework. The

participation requirements are publicly available and form part of Austraclear's Regulations and Procedures. The Regulations and Procedures provide for an appeals process should an application for participation be rejected or a participant's access be terminated.

The CCMS's access to Austraclear is via a non-exclusive 'Special Purpose Participant (Collateral Manager)' category of participation. There are no provisions in the Austraclear Regulations that prevent fair and open access to other entities that may seek to offer their services as a Collateral Manager.

At the end of June 2013, Austraclear had 847 participants.

**18.2 A securities settlement facility's participation requirements should be justified in terms of the safety and efficiency 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.**

Austraclear's participation requirements cover operational capacity, financial standing and business continuity arrangements. Austraclear's participation requirements promote the efficient operation of the facility and do not impose discriminatory or restrictive access constraints such as minimum turnover levels.

Participation requirements for Special Purpose Participants that are Collateral Managers are based on requirements for other categories of participants and may be justified in terms of the safety of Austraclear and the market it serves. Specific business continuity requirements for Collateral Managers reflect the potential critical functionality of such infrastructure.

Under the Regulations and Procedures, Austraclear must be satisfied that a potential participant has (or will have) the relevant managerial, operational and financial capacity and appropriate complementary business continuity arrangements in place to enable it to meet its ongoing obligations. In addition, an applicant for special purpose participation as a Collateral Manager is required to have an Australian Financial Services Licence covering the activities that it will conduct as a Collateral Manager.

Additional requirements that apply to participants that are Foreign Currency Settlement Banks are described under Key Consideration 9.3.

**18.3 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.**

Austraclear has wide-ranging powers to sanction its participants. Austraclear may suspend or terminate a participant's authority to settle transactions in the event of a default, or in the event of a breach of the Regulations and Procedures that may have an adverse effect on the SSF. The action taken in the event of a breach will depend on a number of factors, including the participant's history of compliance and whether the breach implies negligence, incompetence or dishonesty. Where a breach has been identified and the participant has taken appropriate steps to rectify it, Austraclear will typically continue to monitor the participant closely for a period of time. Breaches are also referred to ASIC and, in most cases, are investigated by ASX Compliance for formal disciplinary action.

## Principle 19: 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.**

**Rating: Observed**

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 19. Austraclear's approach to tiered participation arrangements is described in further detail under the following Key Considerations.

**19.1 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.**

Given the nature of the wholesale OTC market in debt securities that Austraclear settles, participation in Austraclear is generally direct. Furthermore, since Austraclear does not assume credit or liquidity risk as principal, the primary risks that could arise from indirect participation are operational. In particular, indirect participation arrangements that concentrated settlement activity within a few direct participants could concentrate operational risk to the facility. Any significant activity associated with indirect participation would be likely to be recorded in sub-accounts of direct Austraclear participants. Austraclear is able to monitor these.

Austraclear currently considers the risks from concentration of indirect participants to be low.

**19.2 A securities settlement facility should identify material dependencies between direct and indirect participants that might affect the securities settlement facility.**

Austraclear monitors dependencies arising from tiered participation indirectly via a variety of means. These include regular discussions with participants on developments in their business and risk management activities, participants' own risk assessments, and discussions with new participants as part of the induction process. Based on this information, Austraclear has not identified any material dependencies between direct and indirect participants that might affect its operations.

**19.3 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.**

In general, participation in Austraclear is direct, reflecting the profile of the wholesale OTC debt market that it serves. At end June 2014 there were 847 direct Austraclear participants.

ASX encourages participants to develop appropriate risk control measures in managing their relationships with clients, including any substantial indirect participants. ASX does not set thresholds, either formal or informal, at which it would encourage direct participation by an indirect participant. ASX's general approach to managing risks associated with participants' business activities is based on a framework that can flexibly detect and respond to new risks as they arise, rather than setting firm *ex ante* activity limits.

**19.4 A securities settlement facility should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.**

Austraclear is not directly exposed to financial risks from indirect participation, and its exposure to operational risks from indirect participants is limited by the bilateral nature of settlement between its participants and its relatively broad participation base. Austraclear would only be expected to face material risks from indirect participation were the nature of its participation base or activities to change significantly.

## Principle 20: FMI links

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

**Rating: Observed**

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 20. Austraclear's management of link-related risks is described in further detail under the following Key Considerations.

**20.1 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 each financial market infrastructure is able to observe the other principles in this report.**

*Identifying link-related risks*

Austraclear maintains three links to other FMIs. A link for the purposes of this principle is any connection that is made to another FMI according to a set of contractual and operational arrangements, irrespective of the complexity or otherwise of the link and whether it is directly with the FMI or through an intermediary.

- *ASX Clear*. This link supports AUD funds transfers related to margin payments. Cash transfers are entered into Austraclear by ASX Clear, and then matched in Austraclear against the respective clearing participants' cash settlement instructions. Regular margin collections, which make up the majority of cash transfers in ASX Clear, are submitted to Austraclear by ASX Clear's margin and collateral systems, while intraday margin collections are entered manually.
- *ASX Clear (Futures)*. This link supports AUD funds transfers in relation to margin payments, lodgement of AUD-denominated non-cash collateral, and settlement of 90-day bank bill futures. As for ASX Clear, cash transfers are entered into Austraclear by ASX Clear (Futures), and then matched in Austraclear against the respective clearing participants' cash settlement instructions. Regular margin collections, which make up the majority of cash transfers, are submitted to Austraclear by ASX Clear (Futures)' margin and collateral systems, while intraday margin collections are entered manually. AUD-denominated non-cash collateral is lodged via a collateral lodgement form. This needs to be received by ASX Clear (Futures) the day prior to the collateral being needed to cover margin, with the security being transferred to ASX Clear (Futures) via a free-of-payment trade in Austraclear. Settlement of 90-day bank bill futures takes place in Austraclear according to procedures set out in ASX 24's Operating Rules and



Procedures. Sellers and buyers who are not full participants of Austraclear must appoint a full participant to act as their settlement agent.

- *Clearstream.* This link relates to Euroentitlements managed in Austraclear (see Key Consideration 11.1). Austraclear is a participant in Clearstream. A participant that has a Eurobond holding in Clearstream may choose to lodge that security in Austraclear, by transfer to Austraclear's Clearstream account. Participants with Eurobond holdings in Euroclear may also transfer securities to Austraclear's Clearstream account via a separate link maintained between Euroclear and Clearstream. Once available in the Austraclear system, arrangements for sales and purchases of the security are as for other debt securities. Withdrawals of Euroentitlements from the Austraclear system are processed in a similar way to deposits, with Austraclear on request transferring the securities from its account in Clearstream to the participant's account with either Clearstream or Euroclear.

#### *Managing operational risk*

Links with ASX Clear and ASX Clear (Futures) are subject to the same operational risk management framework that applies for all the ASX CS facilities. This addresses operational risks associated with software, infrastructure or network failures and manual processing errors. An incident report is required for any significant technical or operational incident, including an assessment of mitigating actions to reduce the risk of reoccurrence. In addition, six-monthly risk profile assessments are prepared and presented to the Audit and Risk Committee, and an independent system-controls audit is conducted annually.

Clearstream's operational risk management arrangements are overseen by the Central Bank of Luxembourg (Banque Centrale du Luxembourg, BCL). BCL performs periodic assessments of Clearstream against applicable standards.

#### *Managing financial risk*

Austraclear does not assume any direct financial risks from its links to other FMIs.

### **20.2 A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the financial market infrastructures involved in the link.**

Austraclear's links to ASX Clear and ASX Clear (Futures) have their legal basis in the Regulations, Operating Rules and Procedures of the three facilities. The finality of settlements made via these links is supported by the approval of Austraclear under Part 2 of the PSNA (see Key Consideration 1.4).

Austraclear's link to Clearstream has a legal basis in a contract between the two FMIs, and the system rules of Clearstream's international central securities depository. As noted under Key Consideration 20.1, Clearstream is regulated by BCL in accordance with international standards.

### **20.3 Linked central securities depositories should measure, monitor, and manage the credit and liquidity risks arising from each other. Any credit extensions between central securities depositories should be covered fully with high-quality collateral and be subject to limits.**

Austraclear does not extend credit to Clearstream.

- 20.4 Provisional transfers of securities between linked central securities depositories should be prohibited or, at a minimum, the retransfer of provisionally transferred securities should be prohibited prior to the transfer becoming final.**

Euroentitlements are not made available to participants in Austraclear until title has been confirmed by deposit in Austraclear's account at Clearstream. Provisional transfers of securities cannot arise under the link between the two central securities depositories.

- 20.5 An investor central securities depository should only establish a link with an issuer central securities depository if the arrangement provides a high level of protection for the rights of the investor central securities depository's participants.**

ASIC will discuss with Austraclear its arrangements to protect the rights of participants in relation to Euroentitlements.

- 20.6 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.**

Austraclear does not use custodians or other intermediaries in its link with Clearstream.

- 20.7 Before entering into a link with another central counterparty, a central counterparty should identify and manage the potential spill-over effects from the default of the linked central counterparty. If a link has three or more central counterparties, each central counterparty should identify, assess, and manage the risks of the collective link arrangement.**

Key Consideration 20.7 is not relevant to securities settlement facilities.

- 20.8 Each 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 central counterparty and its participants, if any, fully with a high degree of confidence without reducing the central counterparty's ability to fulfil its obligations to its own participants at any time.**

Key Consideration 20.8 is not relevant to securities settlement facilities.

- 20.9 A trade repository should carefully assess the additional operational risks related to its links to ensure the scalability and reliability of IT and related resources.**

Key Consideration 20.9 is not relevant to securities settlement facilities.

## **Principle 21: Efficiency and effectiveness**

**A securities settlement facility should be efficient and effective in meeting the requirements of its participants and the markets it serves.**

### ***Rating: Observed***

ASIC's assessment is that Austraclear observes the requirements of Principle 21. Austraclear's arrangements for ensuring its efficiency and effectiveness are described in further detail under the following Key Considerations.

- 21.1 A securities settlement facility should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement**

**arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.**

Austraclear offers four classes of participation, tailored to the needs of different participants (see Principle 18):

- *Full Participants* can access the complete range of Austraclear products and services, and can carry out transactions with all other participant classes. They can also maintain multiple sub-accounts.
- *Associate Participants* can perform many of the same functions as Full Participants, but can only deal with Full Participants.
- *Special Purpose Participants* can access Austraclear for specific purposes only. They include CCPs, exchanges, regulatory bodies and other entities approved by Austraclear such as energy market participants. In recent years Austraclear has added two new categories of Special Purpose Participant: Collateral Managers and Foreign Currency Settlement Banks.
- *Public Trust Participants* can perform the same functions as a Full Participant, but these transactions must be performed on behalf of a nominated trust.

Austraclear offers settlement and depository services for fixed income securities, discount securities, energy products and property conveyancing. Austraclear also offers an AUD cash transfer service via RITS, and in July 2014 launched a Foreign Currency Settlement Service (see Key Considerations 9.2, 9.3). Austraclear's depository function is described in more detail under Principle 11. Related entities offer a range of ancillary services, including registry and issuing and paying agency services, and ASX Collateral.

Austraclear has established the Austraclear Advisory Committee as a formal mechanism for determining the requirements of its participants and broader users (see Key Consideration 2.7).

Austraclear maintains a comprehensive governance and reporting framework that includes:

- transparent processes to operate Austraclear, with well-defined controls, underpinned by written policies and procedures
- the maintenance of sufficient resources (financial, technological and human resources) to operate the facility properly and to meet its obligations under its CS facility licence. ASIC concluded that these resources were adequate when preparing its 2013 ASX Group Assessment Report for the Minister<sup>9</sup>
- Austraclear conflict handling arrangements that are reviewed and adapted to changing circumstances
- processes to monitor and enforce participants' compliance with the Regulations
- liaison processes with ASIC and the Bank
- a continuous improvement program.

---

<sup>9</sup> ASIC's 2013 *Market Assessment Report: ASX Group*, released 28 July 2014, is available at <<https://www.asic.gov.au/asic/asic.nsf/byheadline/Reports?openDocument>>.

Austraclear maintains Regulations for its facility. These govern matters including participation, eligibility and capital requirements (where applicable), control and safe-keeping of securities, record keeping, business continuity arrangements and daily settlement management (see Principle 1).

**21.2 A securities settlement facility should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.**

The ASX Limited Board sets group-level strategic direction and business priorities, including via a three-year strategic plan which is reviewed on a continuous basis. The Austraclear Board sets goals and objectives specific to its settlement service, including a business plan that is reviewed annually. The Austraclear Board also governs and reviews Austraclear's risk management processes, internal controls and compliance systems. In addition, the Austraclear Board is responsible for reviewing the management accounts of Austraclear, which are prepared on a quarterly basis, as well as audited full year financial reports and statements. The Austraclear Board is also responsible for the management of settlement risks (see Principles 2, 3).

In 2013, the ASX Settlement and Austraclear Boards approved ASX's Settlement Risk Policy Framework, which was established to ensure that ASX's settlement facilities continue to meet the FSS, as well as to provide a formal framework for review and development of settlement policy and standards (see Key Consideration 3.1).

Austraclear measures its progress against goals and objectives in a number of ways.

- Austraclear measures the effectiveness of its services via participant and user feedback. Austraclear uses customer engagement and consultative processes described under Key Consideration 21.1 to ensure that it achieves its goals in relation to meeting the requirements of participants.
- Senior management reviews the status of Austraclear's goals and objectives on a regular basis and reports to each meeting of the Austraclear Board, and periodically to the Enterprise Risk Management Committee and the Audit and Risk Committee on progress towards meeting these goals and objectives. Reporting and measurement mechanisms include risk profiling and analysis, internal audit reviews, regulatory assurance reviews, and periodic analysis and reporting of key system service availability and capacity utilisation metrics (see Principles 3, 15, 17).
- Regulations and Procedures, together with other participant communications such as market notices, provide transparency to participants and other stakeholders regarding the operation of the Austraclear facility (see Principle 23).

The Audit and Risk Committee has responsibility for considering reports regarding the effectiveness of Austraclear's risk management framework and processes. The Committee is assisted in this area by Internal Audit, Enterprise Risk, and Regulatory Assurance. The Audit and Risk Committee considers reports from these departments regarding the appropriateness and effectiveness of internal controls, and action taken or proposed in response to assessments conducted by ASIC or the Bank.

**21.3 A securities settlement facility should have established mechanisms for the regular review of its efficiency and effectiveness.**

In addition to periodic reporting to the CS Boards and relevant committees under ASX Group's corporate governance framework (see Principle 2), relevant Group Executives also report to the CEO on a monthly basis. Metrics contained within these reports include key measures of system availability and capacity utilisation, key settlement statistics, technical incident reporting, and new issues and admissions. Other issues recorded and measured include the cause and resolution of settlement failures, operational incidents and participant complaints.

Availability targets are documented and defined formally for critical services. The Austraclear System (also known as EXIGO) is required under its Step-in and Service Agreement with the Bank to meet a minimum availability target of 99.9 per cent, while Austraclear targets capacity headroom of at least 50 per cent above peak recorded values. The availability and capacity utilisation performance of EXIGO is discussed under Key Consideration 17.3.

Responsibility for the regular review of Austraclear's efficiency and effectiveness is shared between a number of committees and departments within the ASX Group.

- SROCC oversees matters relating to Austraclear's fair and effective obligations under its Australian CS facilities licence. Section 821E of the Corporations Act requires Austraclear to provide a report to ASIC within three months of the end of its financial year on the extent to which the licensee has complied with the conditions of its licence.
- CALCO oversees the structural integrity and efficient use of liquidity, on-and-off-balance sheet assets, liabilities and the capital resources of the ASX Group, including Austraclear.
- As part of its commitment to continuous improvement, the ASX Operations and Risk divisions have adopted a comprehensive suite of policies and procedures to support the governance and internal review of Austraclear. These policies and procedures are reviewed on a regular basis (see Principles 2, 3).
- ASX Compliance monitors and enforces participants' compliance with the Austraclear Regulations. Other departments within ASX Group assist ASX Compliance in monitoring Austraclear's performance of its licence obligations.

The Austraclear business plan is reviewed annually. Customer feedback, from regular customer engagement, also provides a regular review of Austraclear's efficiency and effectiveness.

## Principle 22: Communication procedures and standards

**A securities settlement facility should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.**

### ***Rating: Observed***

ASIC's assessment is that Austraclear observes the requirements of Principle 22. Austraclear's approach to communication procedures and standards is described in further detail under the following Key Consideration.

#### **22.1 A securities settlement facility should use, or at a minimum accommodate, internationally accepted communication procedures and standards.**

Austraclear has procedures in place to determine the impact of and actions required to accommodate changes in internationally accepted communication protocols. Austraclear also has processes and procedures for the notification of changes to users and other relevant stakeholders. Notification may take the form of consultation papers, software vendor workshops, notices to participants and bilateral contact with software developers. Each new business requirement is analysed in order to identify the most appropriate means of integrating changes to communication protocols, with a particular focus on standardisation and open connectivity.

Austraclear's core system, EXIGO, supports the SWIFT Message Protocol, an internationally accepted communications standard. Participants can also access Austraclear via an internet connection or via a secure private network (ANNI).

The ASX Collateral service provides a secure internet interface, 'ASXCOL+' that can be accessed via a secure Virtual Private Network environment or over the internet. Customers can use ASXCOL+ to manage collateral lodged in Austraclear and related exposures.

## Principle 23: Disclosure of rules, key procedures, and market data

**A securities settlement facility should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the securities settlement facility. All relevant rules and key procedures should be publicly disclosed.**

### ***Rating: Observed***

ASIC's and the Bank's assessment is that Austraclear observes the requirements of Principle 23. Austraclear's disclosure of rules, key policies and procedures, and market data is described in further detail under the following Key Considerations.

#### **23.1 A securities settlement facility should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.**

Austraclear's Regulations and Procedures form the basis of all material aspects of the SSF's service to participants. The Regulations and Procedures are disclosed on the ASX public website.<sup>10</sup>

To assist participants in their understanding of the risks of participating in Austraclear, and for the information of other interested stakeholders, ASX publishes a range of additional material on its public website. Information specific to Austraclear includes information about participant requirements, SWIFT message protocols, trade and settlement monitoring systems, known software release issues and change requests, and business continuity arrangements. More general information includes: the ASX Group's regulatory framework; requirements of the FSS; requirements of the Corporations Act for provision of services in a 'fair and effective' way; the ASX Group's other obligations under the Corporations Act; and ASX Group's compliance with the Principles. During 2013/14, ASX redesigned its website, one element of which included centralising links to information required to be disclosed under the Principles.

---

<sup>10</sup> Available at <<http://www.asx.com.au/regulation/rules/austraclear-regulations.htm>>.

Specific disclosure requirements are dealt with under Key Considerations 1.3, 2.2, 13.3, 14.4, 16.4, 18.2 and 18.3.

**23.2 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.**

General descriptions of Austraclear’s system design and operations are available on the ASX public website, including as part of ASX’s response to the CPSS-IOSCO Disclosure Framework (see Key Consideration 5).<sup>11</sup> The Disclosure Framework document describes the ASX group structure, provides a general description of the CS facilities and their roles, system design and operations, outlines the legal and regulatory framework for clearing and settlement, and provides a description of steps taken by ASX to ensure compliance with the Principles and the corresponding FSS. The ASX public website provides additional information on system design and operations and will be updated once the EXIGO insourcing project is complete.

**23.3 A securities settlement facility should provide all necessary and appropriate documentation and training to facilitate participants’ understanding of the securities settlement facility’s rules and procedures and the risks they face from participating in the securities settlement facility.**

All applicants for participation in Austraclear are provided with a comprehensive application pack, which includes information regarding key requirements of the facilities. Applicants are provided with access to the Regulations, Procedures and Guidance Notes via the ASX website, as well as publicly available information about the facilities, services and participation requirements. When Austraclear has completed an initial assessment of an application, the applicant is also invited to attend formal ‘on boarding’ meetings with the Compliance and Operations departments to discuss key areas of importance for participants.

As part of the formal admission process, the applicant must provide supporting evidence of its capacity to comply with the rules. This is reviewed and discussed with the applicant prior to approving admission. When reviewing the submissions, ASX will make enquiries of participants about their risk assessments, the design of the controls to mitigate those risks, and details of participants’ arrangements to ensure compliance with the Operating Rules and Procedures.

Where ASX becomes aware or suspects that a participant lacks a satisfactory understanding of the Regulations and Procedures, or the risks of participation, ASX will generally work collaboratively with the participant to educate them on their obligations. ASX may become aware of issues through its routine risk monitoring activities or through its regular discussions with participants (see Key Consideration 17.7). An example of a matter that might raise concerns would be if a participant had a high frequency of technical connectivity issues. If the matter is serious, ASX may require that the participant remediate the weakness. Alternatively, ASX may impose conditions on participation, or require that the participant appoint an independent expert to assist with the remediation task.

---

<sup>11</sup> Available at <[http://www.asx.com.au/documents/regulation/pfmi\\_disclosure\\_framework.pdf](http://www.asx.com.au/documents/regulation/pfmi_disclosure_framework.pdf)>.

**23.4 A securities settlement facility should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The securities settlement facility should provide clear descriptions of priced services for comparability purposes.**

A full breakdown of the various fees Austraclear charges for the individual services it offers, including available discount and incentive schemes, is published on the ASX website. Fee schedules are available for each CS facility ASX operates.<sup>12</sup>

Austraclear publishes a description of its priced services and how its fee structure has been calculated via its Schedule of Fees and in notices to users.

Austraclear publicly announces changes to its fee structure via notices to users. The Austraclear Regulations allow Austraclear to determine the manner in which fees and any other amounts payable to Austraclear are to be paid.

**23.5 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 data on transaction volumes and values.**

ASX has published its response to the CPSS-IOSCO Disclosure Framework, including information describing how its CS facilities observe the applicable Principles. This document was revised during 2013/14, expanding on a previous version that summarised ASX's approach to observance of the Principles with greater detail as to how the CS facilities meet the Principles and corresponding FSS. ASX plans to update this document quarterly and further enhance its disclosure as necessary from time to time.

ASX currently reports basic risk and activity data for the CS facilities via a monthly activity report. The Bank will continue to monitor steps by Austraclear to refine and enhance its disclosure.

## **Principle 24: Disclosure of market data by trade repositories**

**A trade repository should provide timely and accurate data to relevant authorities and the public in line with their respective needs.**

**Rating: Not applicable**

Principle 24 is not relevant to securities settlement facilities.

---

<sup>12</sup> The Austraclear fee schedules are available at: <[https://www.asxonline.com/intradoc-cgi/groups/participant\\_services/documents/information/asx\\_037923.pdf](https://www.asxonline.com/intradoc-cgi/groups/participant_services/documents/information/asx_037923.pdf)>, <<http://www.asx.com.au/documents/settlement/Austraclear-Issue-Administration-Fee-Schedule.pdf>>, and <[http://www.asx.com.au/documents/professionals/fee\\_schedule\\_acsl.pdf](http://www.asx.com.au/documents/professionals/fee_schedule_acsl.pdf)>.